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PROFESSIONAL
DEMOLITION
AMERICAS

Your Gateway to North, Central and South America

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Postal address:
Riverbends Publishing, LLC, Pda Magazine,
P.O. Box 552, Nokesville, VA 20182, USA

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+1 703 392 0150

E-mail Editorial Office:
editorial@pdamericas.com

Web Site:
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EDITORIAL STAFF
Senior Editor:
Jim Parsons
jim.parsons@pdamericas.com

Editor-in-Chief:
Jan Hermansson
jan.hermansson@pdamericas.com

Assisting Editor-in-Chief
Anita do Rocio Hermansson
anita.hermansson@pdamericas.com

Editor North America: Jim Parsons
jim.parsons@pdamericas.com

Editor South America: Luiz Carlos Beraldo
luizcarlosberaldo@gmail.com

Editors Europe: André Hermansson
andre@pdworld.com

Vitor Hermansson
vitor@pdworld.com

CORRESPONDENTS
Andrei Bushmarin
andrei.bushmarin@pdamericas.com

Mikael Karlsson
mikael.karlsson@pdworld.com

SALES
Sales Director North & America
Andrei Bushmarin
Phone: +7 921 949 27 81
andrei.bushmarin@pdamericas.com

Sales Director North America
André Hermansson
Phone: +46 70 979 04 03
andre@pdworld.com

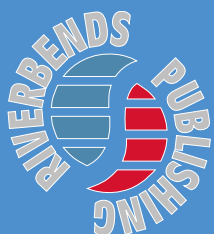
Sales South America
Eduardo Kubrick
Phone: +55 11 999494544
eduardo.kubrick@pdamericas.com

Sales Europe and rest of the world
Phone: +46 8 585 700 46
sales@pdamericas.com

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Jan Hermansson

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Kemroc.

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Back to Reality

Conexpo 2023 will likely go down as the most talked-about industry event of the year. That's due, in part, to the fact that there were so many people there—more than 139,000 according to the organizers' figures. The turnout certainly to bring smiles to exhibitors faces, as well as those dependent on Las Vegas's hospitality and entertainment economy, which is regaining its post-pandemic footing.

Indeed, Conexpo surpassed both of the city's traditional top-2 mega-shows—last fall's Specialty Equipment Market Association event, and this past January's Consumer Electronic Show. (True, those are annual events, compared with Conexpo's three-year cycle. But why no let construction enjoy its well-earned Las Vegas trade show bragging rights while it can.)

As all those Conexpo attendees packed up their product data sheets, exhibitor trinkets, and memories for the trip home, the only regrets were likely that they didn't get to see everything, or missed the opportunity to return to an already crowded exhibitor's booth. It's hard to imagine there not being an industry product not represented at Conexpo—from the most massive crane to the smallest pocket tool. There literally and figuratively was something for everyone.

And for many, there was good news waiting when they got home, with new government data indicating the addition of 24,000 employees to construction sector payrolls this past February, completing a 3.2% industry-wide increase over the past 12 months.

Of course, there remains a sizeable gap between demand and supply when it comes to construction labor, and the disparity is most acute in locations where skilled workers are needed most. And the past year's increase has come literally at a price—namely a 6.1% increase in average hourly

earnings (to \$33.57) for production and nonsupervisory workers (i.e., hourly craft workers), according to the Associated General Contractors. How that affects a contractor's balance sheet—also taking into consideration continued increases in the cost of key materials, fuel, and other resources—is a matter best left to each business owner and his or her accountant.

Then there's the looming challenge, as pointed out by AGC's analysis, of recruiting new people to the industry to offset the gradual erosion of aging Baby Boomers (and, soon, the smaller pool of Generation Xers) from the industry, who take both skills and experience with them when they hang up their hardhats and safety vests for the final time.

It's not for a lack of trying. It's hard to find a construction or engineering firm that doesn't participate in mentoring and STEM programs aimed at lighting a spark of interest among students, or will it into a flame of a potential career choice through vocational and trade-based training programs.

Higher pay will help fan those flames of interest, as will those high-tech machines and tools that lined Conexpo's crowded aisles. But those effects may prove as short-term as the dent this winter's record snowfall in the western US put in the region's overburdened water supply.

Conexpo 2023 suggests the industry has some welcome momentum. Can it be sustained? We'll have a better idea when the construction event calendar flips to Conexpo 2026.

Jim Parsons, Senior Editor
jim.parsons@pdamericas.com





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PDa Magazine is pleased to present regular updates from the US National Demolition Association. This column comes from NDA Executive Director Jeff Lambert.

A Warm Welcome, a New Plan, and a Thank You

Congratulations to James Milburn of Milburn Demolition, Bellwood, Ill., on becoming NDA president for 2023-2025. James was elected at our Annual Meeting of the Members in March. Under his leadership, the association will implement its new strategic plan, which was approved at the Board of Directors meeting in February. The new strategic plan includes opportunities to build upon the successes of previous years to meet current industry needs. Reflective of goals and actions that emerged from the 2022 member needs assessment, meetings with a focus group and NDA Executive Committee, and meetings and a growth session at the fall board meeting, the plan is guided by three themes—membership, workforce, and safety. At the end of the board's growth session, there was consensus to recruit and retain top tier demolition companies, launch chapter networks and member workforce recruiting and retention tools, credential 300 demolition supervisors by 2026, and develop laborer/field worker level certification by 2025.

I would like to thank Past President Scott Homrich for his dedication to NDA and all we accomplished under his leadership. The association enjoyed significant growth during his term, adding more than 70 members last year. In addition, we hosted nearly 1,100 attendees this year at the Demolition Phoenix convention and expo. Here are some other NDA accomplishments made possible under Scott's guidance:

- **Formalized an alliance with the United States Occupational Safety and Health Administration (OSHA).** This allowed us to expand existing relationships between NDA and OSHA's regional and area offices to address industry health and safety issues; develop and disseminate materials and effective training aids aligned with current regulatory information, interpretations, and enforcement initiatives; and develop and review demolition best practices.
- **Developed the industry's first certification.** The Certified Demolition Supervisor (CDS) certification will complement NDA's Foundation of Demolition Training Series. Our first certification testing window is slated for this summer.
- **Launched a dynamic membership directory.** This directory allows members to download primary contacts of member organizations seek products and services from trusted partners.
- **Created two guidance documents.** NDA's Industry Committee undertook the task of creating "Guidance for Demolition of Power Plants" and "Guidance for Implosions." Once complete, OSHA will provide these guidance documents to industry stakeholders as a resource.
- **Launched Demo on Demand.** This content hub is NDA's online resource for sharing the intelligence of demolition contractors and equipment manufacturers, as well as delivering the forward-looking insights you need to succeed in an evolving industry.

While this is not an exhaustive list of NDA's accomplishments over the past two years, it is testament to our progress as an organization and industry.

With all that has been going on with the industry and at NDA, if you know someone who is not a member, or you yourself are not a member, now is the time to join. Membership provides access to safety resources, demolition best practices, educational content, a company listing in our public membership directory and so much more. Contact me at jlambert@demolitionassociation.com, or apply for membership at demolitionassociation.com.

Jeff Lambert
Executive Director

www.demolitionassociation.org

Bailey International Expands Capabilities with New Facility

Following its previously announced acquisition of Hydrolico, Bailey International has combined the two organizations' existing technical experience and product line to create a dedicated facility for hydraulic motors, valves, and pumps. Located in Grand Rapids, Mich., the new Motors, Valves, and Pumps (MVP) Center features a fully stocked inventory of standard motors, rapidly customizable products, and custom manufacturing capabilities.

More than 75% of the new 20,000-sq-ft MVP Center is dedicated to warehouse, manufacturing, and configuration facility. It's staffed by dedicated team of experts who build, service, and configure hydraulic motors, valves, and pumps, including hard-to-find equipment. The Center also offers quick configuration of products to meet the specific needs and requirements of customers in the construction, agriculture, forestry, and transportation markets.

"There is a significant shortage of hydraulic motors available in the industry, as well as a shortage of professionals who know how to build and service these motors," says said Chris Rowley, Vice President of Bailey's Hydraulic Business Unit. "By expanding our focus and capabilities with the MVP Center, Bailey is able to offer dedicated expertise and critical products to help keep our customers up and running."

www.baileyhydraulics.com

Cummins Showcases 15-Liter Engine Platform, Hydrogen Technology at Conexpo

Cummins, Inc., showcased its new fuel-agnostic 15-liter engine platform at Conexpo, with hydrogen, natural gas, and advanced diesel engines offering low-to-zero carbon fuel capability. The next generation engine is designed to accelerate the decarbonization of heavy-duty off-highway applications.

The new engine is a clean sheet design that points to the future of diesel—more capability with less environmental impact. Its high power density sets the standards for heavy-duty performance in key off-road applications including excavators, wheel loaders, drilling rigs, road planning, milling machines, haul trucks and air compressors. Innovatively designed hardware provides lower weight with maximum engine durability, even when working on the most challenging jobs

www.cummins.com



Aquajet Adds New Distributor in Australia



Brokk Australia Pty Ltd offers sales, training, maintenance, spare parts, and application consulting for the complete line of Aquajet Aqua Cutter hydrodemolition robots.

Aquajet has added Brokk Australia Pty Ltd to its global sales network. With locations in Sydney, Melbourne, and Morphet Vale in South Australia, Brokk Australia offers sales, training, maintenance, spare parts and application consulting for the complete line of Aquajet Aqua Cutter hydrodemolition robots. Serving customers in Australia and New Zealand, Brokk Australia also offers

training on safe and efficient operation techniques, and provides consulting to help users select the right hydrodemolition equipment for their specific needs. Aquajet's global distributor network includes North and South America, Europe, Asia, Oceania, Africa, Australia, and the Middle East.

www.aquajet.se

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Event Calendar

CONCRETE SHOW BRAZIL 2023

August 8-10, 2023
Sao Paulo Expo, Sao Paulo
Brazil

www.concreteshow.com.br

IDA CONVENTION AND DEMTECH TRADESHOW

September 28-29, 2023
Bangalore, India
www.indiandemolition.org

www.demtech.in

EXPOCIHAC MEXICO 2023

October 11-13, 2023
Centro Citibanamex, Mexico
City, Mexico

www.expocihac.com

WORLD OF CONCRETE 2024

January 23-24, 2024
Las Vegas Convention Center,
Las Vegas, USA

www.worldofconcrete.com

CANADIAN CONCRETE EXPO 2024

February 14-15, 2024
The International Centre
Toronto, Canada

www.canadianconcreteexpo.com

THE ARA RENTAL SHOW 2024

February 19-21, 2024
Ernest N. Memorial
Convention Center,
New Orleans, USA

www.arashow.org

ISRI 2024

April 15-18, 2024
Mandalay Bay Hotel, Casino
and Convention Center
Las Vegas, USA

www.isri.org

GIC EXPO 2024

April 18-20, 2024
Piacenza Exhibition Center,
Piacenza, Italy

www.gic-expo.it

INTERMAT 2024

April 24-27, 2024
Villepinte, Paris Nord,
France

www.intermat.fr

DEMCON 2024

September 19-20, 2024
InfraCity, Stockholm,
Sweden

www.demcon.se

BAUMA CHINA 2024

November 26-29, 2024
Shanghai Exhibition Center,
Shanghai, China

www.bauma-china.com



Lindh Takes the Helm of Conjet

Johan Lindh, Conjet's new CEO, has a long background in leading and developing business worldwide. He spent 10 years at AB Volvo, and he has been working in the lift industry with customers in 40 countries. This is his third CEO position, bringing experience that will help Conjet accelerate growth and further develop relationships with existing and new customers globally.

"I joined Conjet because I'm impressed by what this technology can achieve," Lindh says. "One Conjet robot can do the work of up to 25 jackhammer operators, reduce cost, and increase safety sustainably. Conjet has a fantastic team with a lot of enthusiasm and drive. And we already have an international footprint with distributors worldwide. I'm also proud of our 35 years of experience and heritage from Atlas Copco."

Peter Ankerst, chairman of Conjet's Board of Directors says Lindh's proven experience and track record in B2B sales on a global basis for niche technologies such as automated concrete removal makes him well suited for taking the company into the future. "We are very enthusiastic about bringing him aboard," Ankerst says.

www.conjet.com

Dynaset Appoints New CEO Annie Karppinen

Dynaset Oy has appointed Annie Karppinen as the company's new CEO, succeeding her father, Reijo Karppinen, who stepped down earlier this year after nearly four decades in the post. Reijo Karppinen will continue as chairman of the board of Dynaset, and will continue to be a familiar face at both the factory and industry events.

Annie Karppinen has worked with Dynaset for 15 years, most recently serving as executive vice president.

"I strongly subscribe to our values of a customer-oriented approach, courage, teamwork, and Dynaset technology, which will guide our journey toward a better world of machinery," she says. "I aim to take the

lessons from the journey already travelled, combine them with new ones, and, with our team, continue developing our operations and offerings to serve our clients better in whatever industry they work in."

Karppinen sees a very bright future for Dynaset, with years of continuous development of operations and products, enabling agile but high-quality functions in the changing situations that the future market will offer. She says it is Dynaset's strong desire to build genuine, long-lasting partnerships and offer the best solutions on the market at competitive prices. This approach will help Dynaset remain a top choice among customers now and in the future.

www.dynaset.com



Epiroc, Volvo Make an Ideal Combination for Austrian Contractor

Austrian construction company Magyer Betriebs GmbH has invested heavily in large demolition machines, including adding nearly three-dozen new Volvo carriers to its fleet. The expansion also included two largest Epiroc attachments ever delivered to Austria—an HB 7000 hydraulic breaker and a CC 7000 demolition cutter.

With an operating weight of 7t each, the two heavyweights for demolition and rock excavation are top performers on any large construction site. The HB 7000 is designed for 70- to 120t carriers, while the CC 7000 fits 58- to 85t carriers.

Among Magyer Betriebs' other investments is the new EC 750E High Reach demolition excavator from Volvo. With this machine, equipped with a multi grapple from Epiroc, it was possible to demolish a 118-ft (36m) high chimney within 30 minutes at a 775,000-ft² (72,000m²) construction site in southern Vienna. The new excavator has also been fitted with an Epiroc CB 2500 concrete crushers and an MG 2700 multi

grapple. "That's the start of something big, because the chimney demolition is just the beginning and many other large demolition projects will follow," explains Marcel Magyer, managing director of Magyer Betriebe GmbH.

www.epiroc.com

Global Shop Solutions Names New Director of Product and Engineering

Global Shop Solutions, a leader in enterprise resource planning (ERP) software for manufacturers around the globe, is proud to announce the promotion of Trent Maynard to Director of Product & Engineering.

Maynard served as a Global Shop Solutions R&D Manager, creating some of firm's most impactful product advancements in terms of meeting customer needs and positioning the company for new growth.

Maynard's responsibilities will include implementing artificial intelligence (AI) testing tools and best practices and modernizing Global Shop Solutions' software interfaces and tech stack. He wants to ensure Global Shop Solutions creates an ERP product customers love to use because it helps them do their jobs more effectively and efficiently.

"Ultimately, it's all about making sure our product ticks all the boxes for our customers," Maynard says. "Often they don't know what is possible, so we have to listen and understand what they're trying to accomplish and then figure out how the software can solve their pain points. We also want to build a product that appeals to our employees, that our engineers can enjoy working on and be proud of and that attracts top talent to Global Shop Solutions."

globalshopsolutions.com





The OTR Wheel Engineering crew poses with the Kubota Supplier Excellence Award.

OTR Receives Supplier Excellence Award

OTR Engineered Solutions was recognized with a Supplier Excellence Award from Kubota Manufacturing of America and Kubota Industrial Equipment during their annual supplier conference. This yearly award is given to each company's top suppliers for outstanding quality, delivery, and cost commitment.

Specializing in off-the-road terrain engaging solutions for original equipment manufacturers and aftermarkets, OTR has also been a long-time supplier to as Kubota Tractor Service, Kubota Canada Ltd., Kubota-Mexico, and Kubota in Europe and Thailand. Beyond serving a typical supplier role, OTR partners with Kubota facilities, providing not only tire and wheel assemblies, but also value-added services, such as mounting, sequencing, warehousing, and dealer support.

"OTR is committed to our partnership with Kubota Corporation, and we're dedicated to supporting their vision of becoming a 'Global Major Brand,'" says Mike Stoeckel, Global VP of Sales & Marketing. "We're doing this through ongoing investments in people, facilities, technologies, and innovation that will help drive business forward. We're extremely pleased that Kubota has recognized our efforts by presenting us with a Supplier Excellence Award."

www.otrwheel.com



Kubota presented a Supplier Excellence Award to OTR Wheel Engineering, Inc. for outstanding quality, delivery, and cost commitment to both Kubota Manufacturing of America and Kubota Industrial Equipment.

New MOBIBELT Mobile Stackers for Crushing/Screening Logistics

The new MOBIBELT MBT 20(i) and MBT 24(i) stackers from Kleemann flexibly extend the action radius of crushing and screening plants and thus make large stockpiles and improved work site logistics possible.

Both stackers are equipped with a large 1.6-yd³ (1.25 m³) feed hopper made of resistant Kleemann Resistant Steel, which permits the feeding of material with an edge length of up to 7.87 in (200 mm) without any problems. An optional hopper extension up to 3.3-yd³ (2.5 m³) is provided with an additional impact bar that prevents the direct impact of the feed material on the conveyor belt and thus reduces wear. Thanks to the hydraulically adjustable feed and discharge height, a fast set-up is possible and the stackers can be used flexibly behind screening and crushing plants with different discharge heights.

The MOBIBELT MBT 20(i) and MBT 24(i) have an SPECTIVE operating concept that makes intuitive operation of the machines possible. During a typical workday, the operator receives ideal support with a central operating position, local operation and the option of troubleshooting help via SPECTIVE CONNECT.

www.wirtgen-group.com



The MOBIBELT MBT 20(i) and MBT 24(i) mobile stackers from Kleemann make large stockpiles and improved work site logistics possible.

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Cemex and Regenera Mexico Trust in Lindner's Shredding Experience for RDF Production

In Mexico, waste, including industrial waste, is still frequently disposed of in landfill sites. Regenera, a Cemex subsidiary, focuses on developing circular economy solutions for the waste industry. The recycling pioneer Lindner and its local sales & service partner, GTA Ambiental, actively support this project with their on-site recycling machinery and service.

Mexico produces 100,000t of waste every day, most of which is landfilled. To help reduce the volume of industrial waste from this cycle, Regenera, a Cemex subsidiary, has established ten waste collection centers throughout the country. At its flagship plant, the Monterrey waste recovery facility, Regenera relies on the experience of recycling pioneer Lindner and its sales and service partner GTA Ambiental to help to transform non-recyclable material into refuse-derived fuel.

From 2011 to December 2022, Regenera recovered more than 4.9 million metric tons of municipal solid, industrial, and commercial waste. The resulting refuse-derived fuel is produced specifically for energy recovery in cement plants and must therefore meet high-quality standards. These vital criteria include density, energy, and moisture content, and particle size in particular, a challenge that can be reliably met with Lindner's technology and GTA Ambiental.

By producing high-calorific refuse-derived fuels, Regenera, also actively contributes to reducing the carbon footprint. By 2050, Cemex aims to neutralize these emissions, which is also the focus of the Future in Action initiative, a sustainability program founded by Cemex. The objective is to play a pioneering role in climate protection within this industry.

Service on a Lindner shredder at the Cemex Monterrey plant is carried out by GTA Ambiental, Lindner's sales and service partner in Mexico.



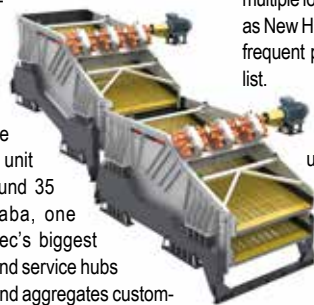
Metso Outotec Doubles Screening Equipment Manufacturing Capacity in Brazil

Metso Outotec is celebrating the inauguration of the extended manufacturing capacity of large screening equipment in Sorocaba, Brazil. The total Sorocaba production capacity will double from 250 to 500 units per year, covering the high-performance energy and water efficient UFS Series™ and BSE Series™ banana screens that are part of Metso Outotec's Planet Positive offering.

In addition, Metso Outotec is investing in new fabrication component manufacturing capabilities for screens and screening parts, which is expected to be fully operational by the end of 2023. Metso Outotec has also invested in a new injection press for screening media rubber panels which will increase production capacity by 50%. Additionally, the new screening facility will enable Metso Outotec to service and refurbish large HPCR and HCR technology to meet mining customers' growing needs for servicing heavy equipment.

"The screening business is one of the growth areas for us," says Eduardo Nilo, President, South America market area. "These investments will help Sorocaba become a center of excellence for screening products and they will strengthen our position in South America, offering sustainable and high-quality screening solutions for customers with competitive lead times in a safe and energy-efficient manner."

The screening equipment factory and the new fabrication unit will employ around 35 people. Sorocaba, one of Metso Outotec's biggest manufacturing and service hubs serving mining and aggregates customers, employs approximately 1,700 people.



Talbert Manufacturing Announces 2022 Dealer Award Winners

Talbert Manufacturing has named Voorhees, NJ-based Hale Trailer Brake & Wheel as its top dealer for 2022. This marks the 15th consecutive year that Hale has earned the top Talbert dealer spot. Hale continues to excel in trailer sales, service and parts. In addition to the top dealer award, Hale was also Talbert's top parts seller for the year.

"The past two years, while not devoid of challenges, have reinforced our gratitude as part of this industry and for all our partners in it," says Troy Geisler, Talbert Manufacturing's vice president of sales and marketing. "This well-earned award is a testament to the exceptional selection and customer service that Hale offers."

Hale, a full-service dealership with

twelve locations from Maine to Florida, provides customers with a wide range of new and used trailers and related equipment. In addition, Hale offers customers full-service and repair, a full stock of parts and accessories, and the ability to rent trailers.

**Talbert's Other Top Dealers
Based On 2022 Sales**

Blackburn Truck Equipment of Lilburn, Ga., celebrates 25 years of service to the towing and recovery industry. The company specializes in repairs, services and installations of all manufacturers of towing and recovery equipment, with installations of carriers and small wreckers performed on-site.

Freightliner of Grand Rapids of Kalamazoo and Grand Rapids, Mich., offers trailers for the construction, material hauling and agricultural sectors. Since 1978, the company has provided customers with one of the most expansive and diverse used truck inventories in the US.

Leslie Equipment Company, a consistent top Talbert dealer, supplies equipment for forestry, mining, oil and gas pipeline applications. Leslie Equipment operates eight locations, serving customers in Kentucky, Ohio, and West Virginia.

Lucky's Trailer Sales of Vermont features a variety of Talbert trailer options, a large, well-stocked parts department and a full-service repair facility. Its history as a family-owned business and expansion to multiple locations throughout Vermont, as well as New Hampshire and New York, makes it a frequent presence on the top Talbert dealer list.

Lynch Chicago of Alsip, Ill., offers a wide range of both new and used tow trucks, wreckers, rollbacks, carriers, and heavy-duty tow truck units and equipment for sale. These options include features and benefits that are well-suited for any size fleet.

Remorques Lewis of La Présentation, Quebec, provides customers with top-notch service in the sale or rental of specialized heavy-haul trailers and premium semi-trailers. For more than 20 years, the company has delivered innovative solutions to meet the unique needs of its customers.

Reno's Trailer Sales & Rental of Belle Vernon, Pa., is a leader in the open deck market, specializing in flatbeds, drop decks, lowboys, double drops, specialized heavy-haul, and tag-a-long trailers. The company has provided industry-leading service for customers in greater Pittsburgh for more than 60 years.

Royal Truck & Utility Trailer carries a wide selection of new and used trailers, as well as wheel reconditioning, service, and fabrication, plus one of the largest parts departments in the industry. Royal Truck & Utility Trailer has four locations covering northern and eastern Michigan.

West Side Tractor of Lisle, Ill., spe-

cializes in full-service construction and forestry equipment. They provide standard and custom heavy-haul trailers. The company operates in 11 locations across northern Illinois, southern Michigan, and Indiana.

www.talbertmfg.com



Hale Trailer Brake & Wheel has been Talbert's top deal for 15 consecutive years.

CSDA Training Program Surpasses 10,000 Graduates

The Concrete Sawing & Drilling Association (CSDA) marked an important milestone earlier this year, graduating the 10,000th student from its training program. Since its launch in 1995, the CSDA training program has seen its course offerings expand from the first course – Cutting Edge, a hands-on and classroom course for sawing and drilling operators – to multiple hands-on and classroom courses, as well as the launch of its brand-new online training site in July 2021. Member and non-member students can take in-person classes for introductory and advanced sawing and drilling techniques, GPR methods and theory, estimating and more. Online class offerings allow students to take classes at their leisure and at their own pace. They include a Silica Safety class, Cutting Edge – an introduction to diamond tools and sawing and drilling methods and GPR Methods and Theory, an introductory-level class for GPR technicians.

For those looking for hands-on training, CSDA has announced its next round of introductory and advanced sawing and drilling classes, all of which will be held at St. Petersburg College in Clearwater, Fla.

Oct. 9-10	Slab Sawing & Core Drilling 101
Oct. 11-12	Wall & Hand Sawing 101
Oct. 13	Wire Sawing 101
Nov. 6-7	Slab Sawing and Core Drilling 201
Nov. 8-9	Wall & Hand Sawing 201
Nov. 10	Wire Sawing 201

The 101 introductory series is perfect for newer operators or those wanting to increase their technical knowledge of concrete cutting techniques, while the 201 series for advanced Operator Certification designed for experienced operators looking to gain proficiency in sawing and drilling techniques.

"An increasing number of companies are struggling to find qualified employees, placing an increased training burden on these companies," says CSDA Lead Instructor Rick Norland. "The CSDA Training Programs can greatly help provide the needed industry specific training to increase efficiency, safety, and productivity while raising the professionalism of the whole industry."

www.csdas.org

New AEM Campaign Aims to Bolster American Competitiveness

I Make America, the national grassroots campaign of the Association of Equipment Manufacturers (AEM), is mobilizing tens of thousands of manufacturing workers across the US to call on lawmakers to modernize the permitting process necessary to build critical infrastructure and boost domestic energy production. The campaign also seeks to ensure that infrastructure funding moves expeditiously to urgently needed project sites, and urges passage of a farm bill to guarantee a safe and abundant food supply for all Americans.

The campaign comes on the heels of Conexpo 2023, North America's largest trade show. AEM's I Make America campaign engaged with the 139,000 attendees to raise awareness for the policies that will strengthen the industry and ensure that equipment manufacturers can continue to make the equipment that builds, powers, and feeds the world.

AEC says the effort resulted in nearly 90,000 letters to Congressional representatives.

"Lawmakers must act to ensure that the 2.3 million men and women of our industry can out-innovate and outcompete the rest of the world," says Kep Eideberg, AEM senior vice president of government and industry relations. "Improving the federal permitting process, passing a farm bill, and continuing to invest in infrastructure will allow equipment manufacturers to do what they do best: build equipment in America."



New England Volvo CE Dealer Expands With Acquisition

Chadwick-BaRoss Inc., a well-established member of the Volvo Construction Equipment dealer network for Maine and New Hampshire, is expanding its footprint in the Northeast with the acquisition of the Volvo and SDLG assets of Woodco Machinery, Inc.

Woodco has long served as the exclusive Volvo CE dealer for eastern Massachusetts and Rhode Island. Through the deal, which took effect April 1, Chadwick now becomes the Volvo CE exclusive dealer for the territory. Chadwick will offer a full suite of Volvo machines and services through its existing and future locations in these states.

Chadwick-BaRoss has been providing equipment in New England for nearly 100 years and offers new and used machines for purchase and rent in a variety of applica-

tions, including construction, forestry, public works, and waste and recycling.

"We thank the Benard family, who owned and operated Woodco Machinery, for their four-decade partnership with Volvo Construction Equipment, and we appreciate their service and commitment as a Volvo dealer," says Stephen Roy, president of Region North America, Volvo CE. "Chadwick-BaRoss offers exceptional experience, presence and customer service, and I know that their strong performance will continue in their newly expanded territory."

www.volvocem.com/na

Mecalac North America Hires After-Sales Manager and Controller

Mecalac North America has hired Amer Ascic as after-sales manager and Diana Lacaire as controller. In their respective roles, Ascic and Lacaire will help streamline processes both internally and externally. This boost in efficiency and experience will serve dealers, customers and other industry partners as Mecalac continues to expand its presence in North America.

Ascic spent more than 20 years working at Caterpillar dealers across the U.S. and Europe in a wide range of positions, providing a broad base of knowledge and understanding of compact equipment and its applications. He also worked as a service manager for a Mecalac dealer in the northeastern states. With his breadth of knowledge surrounding the industry, the Mecalac brand and product line, paired with a familiarity of the challenges that dealers face, Ascic offers a new depth of partnership to Mecalac dealers and end-users.

In his new role, Ascic's primary responsibility is providing after-sales support to Mecalac dealers, such as assessing their needs for training, support and other resources to ensure customers receive well-rounded service before, during and after a sale. As Mecalac North America adds new dealers in 2023, Ascic will be responsible for a smooth onboarding process on the technical side of the business.

Ascic earned a B.S. in Mechanical Engineering and an M.S. in Industrial Engineering from the University of Sarajevo.

Lacaire brings more than 30 years of accounting experience to her new role as controller, offering valuable insight into streamlining internal processes and analyzing business data. This data and insight will help to guide business decisions as Mecalac approaches its 50th anniversary as a company and six years in North America.

In her previous role, Lacaire successfully oversaw the integration of three companies into one unit, streamlining and standardizing processes and rules. She built on the success by documenting and adding policies and procedures to grow the company and drive efficiency both



internally and externally. Lacaire earned a B.A.S. degree in Accountancy from Bentley University, and holds a certificate

in accounting and computer science from Salter College.

www.mecalac.com

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CONEXPO

Throngs of attendees, exhibitors pour into Las Vegas for a sustainability-oriented trade show.

Any doubts about the North American construction industry's post-pandemic resilience were put to rest this past March, as the 2023 edition of Conexpo literally and figuratively overwhelmed Las Vegas with a turnout that would have made Elvis Presley envious.

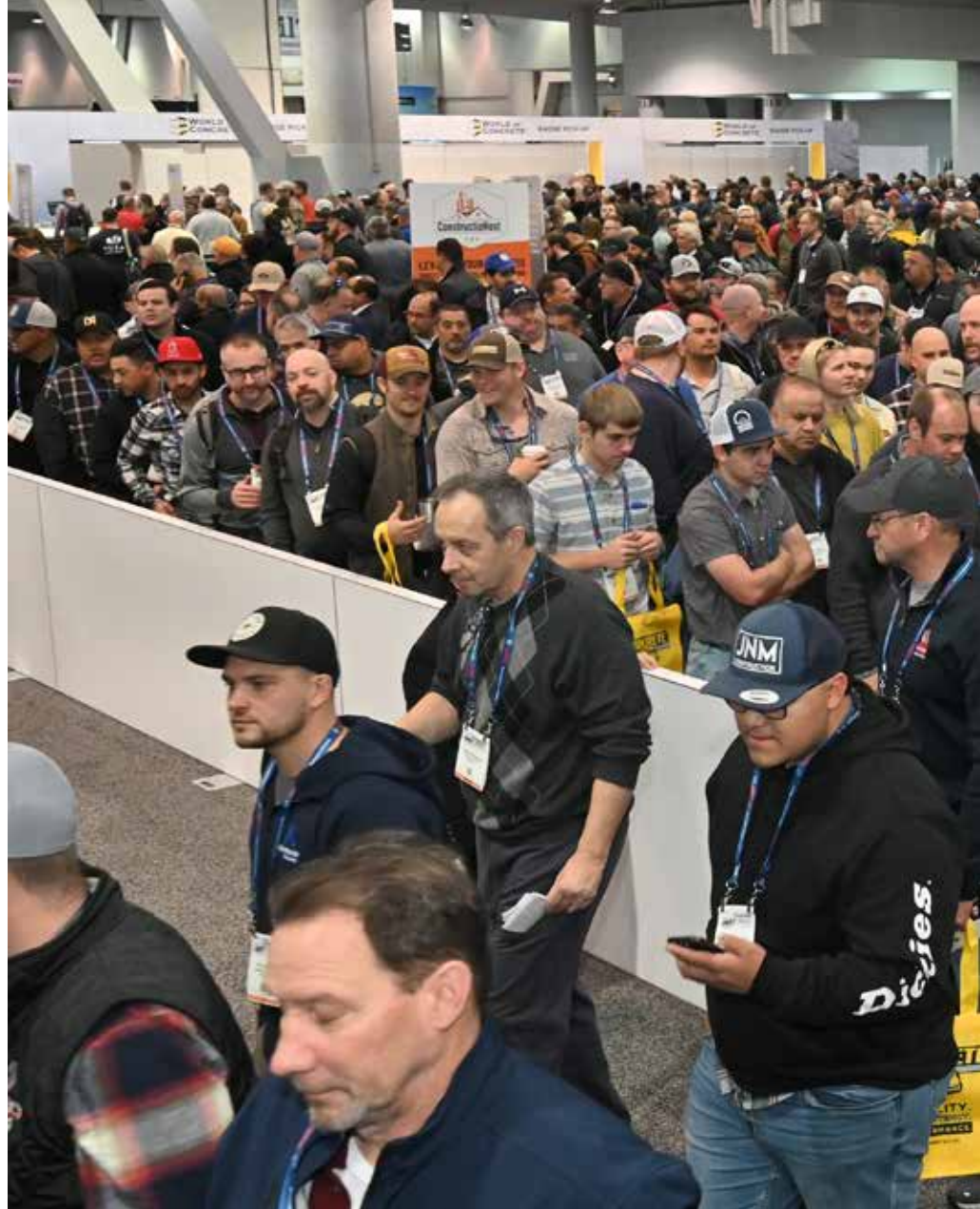
According to Conexpo's organizers, the five-day show (held in conjunction with the International Fluid Power Exposition) drew more than 139,000 registrants, a 6% increase over 2020's figure (though there are doubts as to how many actually risked that year's uncertainties to make the trip to Las Vegas). More than 2,400 exhibitors of all sizes from 36 countries showcased their products and services across more than 3 million ft² (278,700 m²) of space encompassing all four Las Vegas Convention Center exhibit halls and several expansive outdoor demonstration lots.

Many of Conexpo's product announcements and company news will be presented in more detail in this and future issues of PDA. For now, here is a sampling of the many, many highlights from five action-packed days in Las Vegas.

Turning up the juice on electric-powered machinery

As is typical for a construction megashow, big equipment took center stage, with much of it based in Conexpo's far-flung Festival Lot (not much of a festival for the feet, but that's another story). Sustainable power, a recurring theme over the past few years, seemed to proliferate even further for manufacturers large and small. For example, Volvo Construction Equipment contributed its EC230 electric excavator pilot, its Zeux autonomous concept wheel loader, and HX04 prototype hydrogen articulated hauler, while Caterpillar featured four battery electric machines as well as a series of prototype batteries for off-road equipment ranging from 48V to 600V.

Hyundai showed three compact excavators—HX35AZ, HX40A, and HX48AZ—all of which feature a distinctive new "Tiger Eye" design with large cabs, larger windows for increased visibility, and enhanced operator comfort. Specific models include load-sensing hydraulics incorporating adjustable auxiliary flow, zero-tailswing, and a new auto safety lock function to prevent unintended use. Hyundai also used Conexpo 2023 to debut its HS120V skid steer loader and HT100V compact track loader, representing the company's re-entry into these compact equipment



categories. And perhaps the booth's biggest attention-getter was the HW155H a 2t, hydrogen-powered wheeled excavator, developed in anticipation of a proliferation in fuel cell technology.

Komatsu is likewise trying to make good on its goal to have a fully carbon-neutral product line by 2050. The 20t PC210LOE battery-powered excavator, introduced last fall at Bauma 2022, made its North American debut with Proterra-designed lithium-ion battery technology that the company says delivers up to 8 hours of operating time. A Proterra-design porta-

ble charging station was also introduced to facilitate jobsite recharging. At John Deere's sprawling exhibit, shared with Wirtgen Group, the company showcased three E-Power battery-electric machines—the 310 X-Tier backhoe, the 244 X-Tier compact wheel loader, and the 145 X-Tier excavator concept. All are part of the company's drive to offer more than 20 battery-electric or hybrid machines by 2026.

More mini and micro-mini equipment makers are getting in on electric power as well. AUSA unveiled its first zero-emission electric dumper—the

CRUSHES IT!



1.18-yd³/3,300-lb capacity D151AEG. Powered by lithium-ion batteries, the D151AEG can complete a full shift on a single charge. It features an integrated charger that can quick-charge the battery from 20% to 80% in just two hours.

"We are extremely pleased with the results achieved at this year's Conexpo-Con/Agg. We came to the trade show with high expectations, but the response to our products, especially the D151AEG electric dumper, was even better than we had initially anticipated", remarked Ignasi Moner, AUSA US's CEO

couldn't have been happier with the reception of D151AEG electric dumper, exceeding the company's already high expectations for the show.

"The dumper has a long journey ahead in North America," Moner said in a post-show statement. While AUSA is already a major player in the European dumper market, he added, "we have been taking innovative ideas and concepts over to North America for a number of years. Our machines are increasingly successful and popular in this market."

There were some new names amongst the

battery-powered models on display, including US-based VOLTEQ Equipment's SKY which boasts 1,000-lb (454kg), lifting capacity, more than a dozen attachments, and remote control from up to 160 ft (49m) away. Firstgreen Industries of Czechia offered the Elise 900, reportedly the world's first fully electric skid steer loader, with a lifting capacity of more than 2,600 lbs (1,180kg), and the 31-in (787mm) wide MiniZ 400 compact track loader with a lifting capacity of 880 lbs (400kg).

Another new name to the US market was Italy's



Messerssi, whose zero-emission line includes two electric-powered tracked dumpers—the 1,110-lb (500kg) TC50e and the 2,650-lb (1,200kg) TC120e to complement a variety of conventionally powered compact dumpers, mini-excavators, and loaders.

Manufacturers are also finding ways to expand their market footprints. Longtime electric mini equipment maker Avant Tecno announced the formation of a new subsidiary dedicated to manufacturing OptiTemp battery packs featuring a unique thermal management system that will power machines such as the new e527 and e513 2,000-lb (900kg) loaders for an entire workday on a single charge. In addition, the company claims OptiTemp batteries deliver the same capacity across temperature extremes, and, with a special rapid charger, can be restored to nearly full power in just 90 minutes.

"After working with electric loaders and batteries for decades, we realized that there was no battery pack in the world that would be perfectly optimized for compact loaders," Mikko Piepponen, Chief Operating Officer at Avant Power said in a statement. "That's why we decided to start making batteries ourselves."



Totally Automatic

Develon, Doosan's rebranded construction equipment line, continued the rollout of new construction equipment line, with new additions such as the 116-hp (86.5kW) DTL-35 compact track loader and 2t DX20ZE-7 electric mini excavator. Develon also showcased the latest developments in its Concept-X autonomous equipment solution. Called Concept-X2, the system includes a new DD100-CX dozer and DX225-CX crawler excavator with GNSS-based driving and blade control, automated 3D grading with a tiltrotator accessory, enhanced machine-learning-based auto digging and loading, an integrated work planning algorithm, and E-Stop safety technology.

Develon officials see additional compact equip-



ment models Concept-X2 and as integral parts of their plan to become a top-5 player in the U.S. construction market by 2025. Opportunities for Concept-X2 will likely begin in the mining arena, and gradually expand to other markets, company officials said. Develon has also developed a prototype hydrogen-powered machine, and is now evaluating options for the necessary support infrastructure.

Honda is also getting in on the autonomous vehicle market, debuting its 1t-capacity Autonomous Work Vehicle (AWV), which employs a suite of sensors to operate autonomously, using GPS for location, radar and lidar for obstacle detection and cameras for remote monitoring. The company says AWVs can transport and deliver construction materials and supplies at precise points along a pre-set route.

To help contractors better understand the "brains" behind autonomous construction vehicle technology, motion control specialist Moog Construction provided a demonstration of a programmable autonomous compact track loader, which the company says has already helped deliver solar panels at a U.S. utility-scale solar energy site.





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Moog director of strategy and partnerships Joe Baldi says the technology is well suited for such large, remote locations, as well as handling repetitive tasks at a time when contractors are also contending with labor shortages.

"Autonomously delivering material provides a more consistent process and ensures crews have what they need where and when they need it to keep projects on track," Baldi says. "As the technology evolves, we'll see other ways it can be safely integrated into other types of construction projects."

Moog's TerraTech "ecosystem" of software, digital connectivity, and advanced mechatronics products for all-electric equipment design and development was featured in Bobcat's S7X all-electric skid-steer loader and autonomous concept machine RogueX, both which made their debut at Conexpo, as well as the new T7X compact track loader, already in production.

But wait, there's more!

Let one think Conexpo 2023 was all about things



on wheels, there was plenty of news on other fronts as well. Attachments, buckets, drills, shears—they were all there.

Where to begin? How about at the Montabert booth, where the company unveiled a new four-model line of boom- and stick-mounted demolition shears for carriers from 17t to 40t. The shears feature an oversize to cut the toughest materials, and an integrated speed valve helps to lower cycle times. HB steel blades are interchangeable onsite. 360° rotation is standard for accurate positioning. Montabert also showcased the SD hydraulic breaker series for carriers up to 12t, as well as easy maintenance and replacement of bushings, pins, and tools.

For aggregate producers, Montabert's recent acquisition of Tramac means an expanded line of breaker boom systems provide horizontal reach of 14-65 ft (4.3-20 m), up to 360° of swing arc, and 1,500-13,000 lbf (6.6-58.8 kN) of hammer impact. And, Montabert is now the exclusive US distributor of the Lehnhoff SQ-V Fully Automatic Symmetric Quick Coupler system for 8t to 43t excavators.

Another new tiltrotator option was featured at Kinshofer's booth, with the new TR045NO for 2t to 4.5t excavators. With a 2x 45° tilt angle, the lightweight (330 lb/150 kg) model can handle a breakout force of



8,800 lbf (40 kN) and tilt torque of 4,795 lbf (6.5 kN).

At the Sandvik/Rammer booth, lifecycle manager for attachment tools Fernando Marques said the company has focused on optimizing its hammer line for the "different expectations" of the U.S. market. "While noise is not as big an issue for most contractors as it is in Europe, there is a big interest in 'plug and play' attachments that will get maximum power from the smallest size," Marques explained.

Rammer has thus sought to beef up its line of rotary and static pulverizers with premium hoses and connections, new jaw patterns, and automatic

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greasing systems. The company is also expanded its Cleveland, Ohio-area US headquarters for distribution and customer support, as well as potential domestic manufacturing of pins and other components.

Versatility was also a common theme for Italian attachment maker Mazon, which now boasts engineering facilities in the Florida and Columbia. Sales Director Jose Caraballo proudly discussed the firm's distinctively purple-colored lines of crushers, pulverizers, and multi-processors, as well as a new tilt-rotators that not only rotate 360°, but they also side-to-side by up to 55°. The Mazon Tilt-Rotator features a hydraulic quick coupler that allows the operator to remain in the cab while rotator.

Mazon is also building a presence in the telematics market with the Derek advanced asset management system, with a built-in accelerometer that Caraballo says can help owners ensure that the

equipment is being used properly.

"It also has global connectivity, which means that owners can get product data no matter where the machine is located," he says. Each self-contained Derek monitoring unit lasts approximately seven years—"about the same life of the machine it's monitoring."

Epiroc presented a preview of its new SmartROC T25 R drilling rig with a remote-control system and future-proof digital functions that improve efficiency and help to reduce the rigs' climate impact through fuel savings. Continuing the theme of sustainability, Epiroc's upgraded SmartROC T40 topammer rig for quarrying and construction consumes less diesel than any other diesel-hydraulic rig in its class, according to the company. There was also the new DTH 5 hammer that Epiroc says offers twelve configurations and a 5% higher penetration rate compared to its predecessor

and lasts approximately 10% longer.

Aiming to capitalize on substantial US government investments in transportation infrastructure construction, Simex put the spotlight on equipment such as the D-BLADE 200, a floor saw with diamond blade for linear cuts up to 8 in (200mm) deep in concrete, as well as creating expansion joints on continuous surfaces. Simex says the D-BLADE's clean and burr-free cut produces minimal waste material and avoids trench deformation, facilitating the filling phase and ensuring restoration quality.

Allu brought a bit of Finnish innovation to the desert with the North American debut of its Veloci screening bucket designed for compact excavators, loaders, telehandlers, tractors, and skid steers. All five Veloci size models utilize polyurethane screening stars that create a rotating motion inside the bucket, screening and mixing the material, producing a quality end product for use. Veloci models also feature a double-skin floor for use in demanding environments and/or dealing with demanding materials.

Also new was Allu's variable drum (VD) that allows users to quickly replace blades without the need to open the chain box, allowing a typically three-hour task to be completed in approximately 50 minutes.

For larger crushing needs, UK-based RubbleCrusher made its North American debut at Conexpo with its portable 800-lb pull-behind RC150V jaw



crushers, and its track-mounted counterpart, the RC150T. Both feature a hydraulically driven jaw allowing the crusher to be run both forward and in reverse, making it easy to clear blockages and process sticky asphalt material.

And probably the best view of Conexpo was provided back at the Avant Tecno booth, where sister company Leguan debuted its model 225 lift, specially designed for outdoor work and challenging terrain. The company's largest spider lift to date, the Leguan 225 can elevate 550 lbs (250kg) to a working height of 74 ft (22.5m), with 110° of platform rotation.

Taking the long view

If nothing else, Conexpo attendees left Las Vegas with a good look of the construction industry's not-so-distant future—one in which alternative power sources and technology take a greater role, but also one that still requires the human touch. Artificial intelligence can do a lot, but its creativity goes only so far. And, there's still no robot yet that can deftly scope and



make a perfect cut with a concrete saw, or determine the next move with an excavator.

Some changes are happening incrementally, others have made great leaps (witness the aforementioned preponderance of electric and battery-powered equipment). And what might have been a prototype or even simply talked-about concept this year might well be in full production this year when

Conexpo reconvenes on March 3-7, 2026.

The key, it seems, is to be ready for anything. At least that's the approach that powertrain manufacturer FPT is taking. As the heart of most everything that moves, engines and transmissions might seem to be the last component to undergo significant change. Yet Braden Cammauf, FPT's brand vice president for North America said at Conexpo that the company already has an e-power line-up in the works, even as it continues to customize gasoline and diesel models for its customers in a variety of unique industries.

What provides FPT a valuable degree of nimbleness, Cammauf said, is a recognition is that its business is not simply about powertrains, but power itself.

"We of course watch trends across economies

and industries, and will make decisions as technology evolves," Cammauf commented. "Being aware, being ready, and bringing solutions to the market when they're needed is how you build loyalty, and build success."



Reach Another Level with the Boss Extractor 4000

Deep-pit excavation is tricky, expensive, and labor-intensive. That is, of course, unless you have the Boss Extractor 4000. The Extractor series come in a range of sizes from 66 to 148 ft (20 to 45m). The Boss Extractor 4000 features what the company says is a unique backfill function allowing operators to use the bucket to put dirt back into the hole where generally tele arms are used solely to take dirt out.

The company believes this to be a very first for tele-arms and says it is only available on the current Boss Extractor series.

Here's how an Extractor was set up with a Volvo EC480DL excavator to handle a 131-ft (40m) deep reach

Boss Attachments was tasked with customizing the complete machine for optimal performance, making modifications including a glass floor to enable the operator to see directly over the



excavation site. This was in addition to the twin-camera system supplied showing exactly where the bucket is at all times with a 360° view. The cab of the machine is capable of sliding forward 8.5 ft (2.6m) and has an auto lockout system to ensure utmost safety so there is no fear of damaging anything, or more importantly, falling into the hole. The complete setup goes from the very front of the excavator all the way to the back to the 4.6t underslung counterweight.

There are a range of buckets available for the Extractor series. This model featured a 2-yd3 (1.5m3) bucket that is capable of reaching the full depth in 13 seconds, picking up a load and coming back up in 15 seconds.

Ordinarily for deep pit excavation, an excavator below loading up a skip bin would be required as well as a crane pulling the bin up, and a second excavator up top for then processing the material once tipped from the bin. That's three machines, three operators and two machines sitting idle the whole time. This is very expensive, very time consuming and awkward to say the least.

Instead, The Boss tele-arm makes that old process completely redundant. Furthermore, the arm is easily removed within minutes making it is easy to revert to having a standard excavator onsite as soon as required.

The Boss Extractor 4000 is ideally suited for foundation works, narrow excavation shafts, subway stations, underground parking, underground renovations, canal clearance, and much more.

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New Cat Rotary Cutters Offer Precise, Controlled Breaking

Cat's new RC20 and RC30 rotary cutters are available to be used with pin-on, S-type, Cat pin grabber or CW couplers. Rotary cutters are compatible with Cat hydro-mechanical work tool brackets, which allow operators to move more smoothly from one task to the next. For space constricting jobs, the rotary cutter can be manually turned either 90 or 270 degrees. By adding an optional hydraulic lines kit, the rotary cutter can be turned up to 180 degrees for cleaning narrow trenches or working away from the machine to help get increased productivity. Ideal for dredging applications, the rotary cutter can be submerged in water without modifications to the tool.

The direct drive motor offers high torque, production and performance to help operators get the job done faster. With less space between the drums, operators can build narrower trenches while also burning less fuel. Rotary cutter picks are easily replaced with a simple tool and can be switched out quickly. Maintenance panels offer quick and easy access. Mechanical seals help to lock in grease and keep dust out to go longer between servicing. Rotary cutters break up material more to help put less wear and tear on buckets.

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Technical Specifications

	RC20	RC30
Weight (lb/kg)	2,954/1,340	5,159/2,340
Carrier weight (t)	20-34	28-50
Operating pressure (psi/bar)	2,466-5,802	2,756-5,802



CDE Showcases Next-Gen Equipment at Conexpo

CDE showcased its next generation of waste recycling equipment at Conexpo, and launched the P2-168, the latest addition to its range of Infinity high-frequency dewatering screens. With a processing capacity of up to 750 tons per hour, the P2-168 is the largest model in the range and has been designed specifically for the US market.

Screens are the single biggest point of fatigue in the wash plant setup, but the unique construction of CDE's Infinity range makes them fundamentally different from other screens available on the market. With no welds in the sidewalls, a galvanized structure, and a VibroSync drive mechanism providing control and even distribution of power, they offer increased durability and prolonged operational life for advanced screening and dewatering performance.

The new P2-168 model brings all the benefits of the Infinity range to a new scale to support materials producers processing high tonnages. Benefitting from almost 183 ft² (17m²) of surface area, the screen decks are reinforced at the center point which serves to strengthen the screen and provide the operator with the flexibility to produce up to six in-spec products simultaneously. And the supply lines from our quarries are getting further away from where materials are required.

CDE's stand also included many of its other top-of-the-range recycling solutions. The AggMax is engineered to operate in the toughest conditions, maximizing product yield from the most abrasive of feedstocks thanks to the unique spiral alignment of its paddles. Combining feeding, scrubbing, screening, and sizing on a single chassis, the AggMax is capable of producing a variety of materials at the high processing rates demanded by the US market.

The third generation AggMax 253SR, the latest in the range, has undergone significant improvements to its chassis. Greater modularization enables operators to integrate additional equipment from across the CDE range in line with future commercial needs. Improved access to pumps and other critical components also allows for easier observation and maintenance, minimizing the need for servicing downtime.

CDE's counter-flow classification unit (CFCU) technology allows for effective separation of two materials of differing relative densities. With a variable cut (separation) point, it offers greater control over sand classification providing complete flexibility for the production of various end products and the removal of lightweight contaminants from the fine material fraction. The latest CFCU 300 model is the biggest in the range and includes CDE's newly developed dart valve, offering improved control of the underflow discharge for a consistent material cut point and optimized throughput.

CDE's EvoWash all-in-one sand washing, classification, and dewatering system uses hydrocyclone technology to deliver unparalleled control of silt cut points and increases product yield. The EvoWash 201 is one of the largest in the CDE range and is capable of processing around 200 tons per hour of feed material. The company's ShearClean Attrition Cell technology further enhances the washing process by providing efficient contaminant removal through consistent material scrubbing. It maximizes material-on-material impact to both protect downstream processes from wear and ensure the production of in-spec products. The latest DS120 model is developed for high tonnage operations, offering twice the scrubbing volume as its predecessor, the DS60.

www.cdegroupp.com



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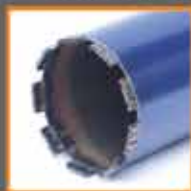


The bullet segment, proven in soft to medium aggregates with uncompromising speed on a long life bit.

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Turbo S G2



Our flagship segment achieving unrivalled performance in almost every type of reinforced concrete. This aggressive design segment is fast becoming first choice for professional drillers.

Turbo S G3



Turbo S G3



With the same aggressive design as the G2, this bond is slightly harder, providing increased life in more abrasive materials, whilst maintaining high drilling speed.

Turbo S G7



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Scoring Points: Epiroc's New VC 2000 Drum Cutter Impresses When Used in Rock

The VC 2000 drum cutter from Epiroc takes demolition and digging to the next level. Thanks to the V-formation arrangement of its cutting heads, the VC 2000 achieves pioneering performance such as higher efficiency and cost-effectiveness, as well as protection of operators, the environment and carriers. The V-shape combines simplicity with exceptional leverage and outstanding performance.

It all starts with the fact that using the new drum cutter saves time and money and reduces energy use by up to 40%. Because of its special design, it allows flat surfaces to be created without material accumulating between the drums. The material is completely removed in the middle of the drum cutter due to the inclined cutting heads without the need for swiveling. This removes the need for the zigzag course and digging can take place faster and much more accurately than before. The VC 2000 can simply be moved straight ahead like a shovel or trench bucket on conventional equipment, making it more efficient and easier to get from A to B.

Of course, the drum cutter can still be used as a swiveling cutter for removing surface material like a conventional transverse drum cutter. A further advantage of the V-technology becomes apparent during regular digging for supply lines, for example: In this case, the drum cutter can simply work like a trench bucket facing the excavator, producing deep, vertical trenches in rock and concrete. Incidentally, this new product also works underwater and can be used up to a depth of approximately 100 ft (30m) without additional installation or modification.

Versatile applications plus additional innovation

The innovative VC 2000 is ideal for profiling hard surfaces such as rock or concrete walls in particular, but also for excavating frozen soil, soft rock in quarries and general demolition work. In addition to its robust housing design for increased operating time and a durable drive shaft bearing with maintenance-free mechanical seal system, it also surprises with an adaptable



gear motor with high torque for greater productivity and longer motor service life. Extremely stable gears for optimal power transmission also ensure complete reliability. The new drum cutter also offers intuitive user-friendliness and protection of the carrier. This, in turn, leads to reduced downtime and maintenance, making the VC 2000 a worthwhile long-term investment.

The VC 2000 is launched together with the sturdy Pro Bracket console, which is particularly advantageous during digging and with fully hydraulic changers. The hydraulic hoses were routed into the adapter plate at the rear in the center of the drum cutter extension arm so that they are effectively protected against the ingress of material and dust and are subjected to less mechanical stress.

The VC 2000's features were on display on a project to remove rock for a stormwater retention basin at the summit of the A45 motorway in a mountainous area of Germany. The

building authorities specified that the slope needed to be secured by a retaining wall. There was rock material on the front of this surface that had to be removed with a high degree of precision and finesse to ensure that the wall, built from concrete piles, was not damaged.

A drum cutter was needed that could cope with the hardness of the rock and work reliably in the confined space. The VC 2000 from Epiroc had been tested on various 20- to 40t excavators beforehand, but mainly on a Volvo 30t tracked excavator, and met the complex requirements perfectly. It ensured that removal was quick and effortless, and that the construction work could be completed successfully within around two weeks. The customer was delighted with the effective and above all efficient construction process and was impressed by the performance of the low-vibration and low-maintenance drum cutter.

www.epiroc.com

Bobcat Debuts All-Electric Skid-Steer Loader, Two Concept Machines at Conexpo

Following the 2022 release of the Bobcat T7X, the world's first all-electric compact track loader, Bobcat unveiled the world's first all-electric skid-steer loader, the S7X, at Conexpo 2023.

Like the T7X, the S7X is all electric, as it is powered by a 60.5-kWh, lithium-ion battery, features electric drive motors and utilizes ball screw actuators for lift and tilt functions. Together, the battery and electrical powertrain generate incredible performance characteristics, with instantaneous torque that is as much as three times greater than traditional loaders. The powerful loader balances sustainability and performance with zero emissions and is equipped to outperform its diesel-powered equivalent. This skid-steer loader offers operators a smooth and comfortable experience with minimal vibration and nearly silent operation. Currently considered a prototype machine, the S7X can operate for up to 8 hours on a single charge depending on the application, giving most operators more than a full day's work when breaks and downtime are considered. A full charge takes approximately 10 hours.

RogueX: concept machine that breaks all the rules

Conexpo visitors also got their first look at the Bobcat RogueX autonomous concept machine, which is still in the early research and development stage. While most closely resembling a track loader, RogueX was built as a proving ground with consideration for the worksite of the future and how a customer's needs may evolve. Areas being evaluated include ease of use, remote operations, autonomous functionality, sustainable operations, and other features to explore the idea of operating in more places than ever remotely. By building the loader without a cab and using advanced kinematics, for example, RogueX features next-generation unique functionality including both vertical-path and radial-path lift capabilities in one machine. The all-electric and autonomous concept machine produces zero emissions as it features a lithium-ion battery, electric drive system, and no hydraulics.

www.bobcat.com



Mecalac Launches Multifunctional Compact Loader Line to North American Market

Mecalac has brought a new product line of robust compact loaders to the North American market. Comprised of six models—MCL2, MCL4, MCL4+, MCL6, MCL6+, and MCL8—the series presents versatility and agility for industries ranging from agriculture to landscape, forestry, snow removal, utility and construction. New hydraulic and maneuverability options, such as M-Drive and Speed Control, ensure versatility of the machines in terms of both application and industry.

Each machine is available in three versions — canopy, canopy with foldable top, or cab. The M-Drive and speed control features allow the loader to function as a tool carrier, providing control of RPM by hand throttle and speed via a foot pedal. This enables more precise and controlled operation of a wide variety of hydraulic attachments.

The ability to redefine the speed range via the foot pedal provides supplemental benefits for particular applications. For example, choosing a lower speed allows for enhanced accuracy on precise applications, such as flail mowing, sweeping or when using log grapple attachments. Both Speed Control and M-Drive come standard on the MCL6 and MCL8 models, and are options for the MCL2 and MCL4 models.

Each MCL in the series has an option for auxiliary hydraulic lines on the boom and at the rear of the machine as well as 12V 3-pole plugs, further enhancing versatility by allowing the ability to use hydraulic attachments on either end of the machine. The MCL series maximizes attachment possibilities with 7.9 gpm (30 lpm) flow on the MCL2 and MCL4 models and 15.9 gpm (60.1 lpm) flow on the MCL6 and MCL8 models.

The MCL4+ and MCL6+ models come standard with a short boom, which offers a better tipping load, whereas the other four models come with a long — standard — boom which maximizes tipping height. Long or short boom, the MCL series machines yield multi-functionality through compatibility with a wide range of attachments.

The MCL series' optimum height-to-width-to-length ratio ensures agility on any jobsite. Each machine has a 45-degree articulation that keeps the front wheels traveling in the same path as the rear wheels while driving. A 10-de-



gree oscillation allows a strong follow-up and maximum traction wherever the machine might travel, including on uneven ground. The MCL2 and 4 models have a 25-hp (5.2kW) engine, while remaining models come with a 49-hp (36.5kW) engine.

Each machine in the MCL series offers easy transportability between jobsites with low transport weight and minimal width, depending on tire selection. The easy transportability

appeals to contractors hauling multiple pieces of equipment as well as rental fleets handling pickup and delivery. Safety continues to be a key focus for Mecalac in the MCL series with easy accessibility for entering the cab or re-fueling from a solid ground footing, reducing the risk of falls. Additionally, the machines offer enhanced side and top visibility over similar sized skid steers.

Customization options for the MCL series allow customers to tailor the machine to their specific operation. A start-up digicode incorporates a keypad that offers the owner tracking and monitoring capabilities by allowing the ability to assign a specific code for each operator. The digicode also minimizes the risk of theft. MyMecalac Connected services offers the option to remotely manage an equipment fleet with access to all machine usage data, providing owners the information needed to minimize machine downtime through preventive maintenance. Operations can add the telematics box installation, which comes with a two-year subscription, to any MCL model they choose.

www.mecalac.com

Ashine – Shining Like a Diamond

PDa Magazine met with Ashine Diamond Tools' president Richard Deng to talk about the company's latest offerings, as well as their brand new 323,000-ft2 (30,000m3) factory, which will soon be in full operations.

Established in 1993, the Xiamen-based manufacturer Ashine Diamond Tools Co., Ltd. initially started out as a manufacturer of concrete grinding tools. In 1995, the company changed its core business to diamond grinding, adding floor polishing to their roster in 2004.

Today, the company offers a variety of tools designed for surface preparation, concrete grinding and polishing, edging, and stone restoration. Last fall at Bauma, Ashine introduced some of their latest offerings, including new ceramic-bond pads. These transitional pads are bonded with diamonds and ceramic powder, and are suited for quick removal of scratches left by metal-bond tools.

Ashine also presented the third generation of its ceramic cup wheels for transitional and handheld angle grinders. The cup wheels are developed to combat a specific problem, namely grinding burn.

"There is a common issue with ceramic cup wheels where the surface is scorched during continuous grinding for a prolonged period of time," Ashine's president Richard Deng told PDa. "Depending on the scenario, these burns can affect efficiency and effectiveness, as well as cause diamonds to fall off. With our ceramic cup wheels there is no burning so that the user can maintain continuous fast-grinding."

Ashine continually updates formulas, and tests their efficiency to improve tool performance. Aimed for high efficiency, the cup wheels remove more material for each pass and leave a finer scratch pattern to save two to three steps of edge grinding work, according to Deng.

New factory, R&D and humanitarian work

In other news, Ashine is also presenting its new 323,000-ft2 (30,000m3), which has been built to increase production capacity and speed, as well as guarantee stability in the production chain. Other plans for the future include training and strengthening research and development, a procedure Ashine is undertaking together with a consulting company.

Ashine is also an active supporter of several aid projects and non-governmental organizations focused on search-and-rescue, water conservation, suicide prevention. For example, Ashine donated to the Made Blue Foundation, an entrepreneurial charity focusing on clean drinking water in developing coun-



tries. For every pad sold by Ashine, a portion of the proceeds went to Made Blue. During the covid-19 pandemic, Ashine has also provided face masks.

"The reason for this is simply that I think companies should help others," Deng said.

www.ashinediamondtools.com



Surface Preparation



Concrete Grinding



Concrete Polishing



Stone Restoration

Develon Launches New Demolition Excavator, DX245DM-7

DEVELON, formerly Doosan Construction Equipment, has launched the new DX245DM-7 high-reach demolition excavator, replacing the previous DX235DM-5 model.

Powered by the DL06P Stage V diesel engine providing 173 hp (129kW) of power at 1800 rpm, the 31t DX245DM-7 also features a high-visibility, tiltable cab, particularly suited to high-reach demolition applications and offering a 30-degree tilting angle. Another key feature of the DX245DM-7 is a modular boom design and hydraulic lock mechanism on the machine. This provides the customer with a complete, flexible solution that allows them to use the same excavator for other applications on site as well as demolition.

The innovative design ensures it is a simple process to change between a demolition boom and an earthmoving boom to accomplish different types of work on the same project. A special stand facilitates the boom changing operation, which is based on quick-change hydraulic and mechanical coupler connections. A cylinder-based system is used push the locking pins into place to help complete the procedure.

The multi-boom design also allows the earthmoving boom to be mounted in two different ways, which with the demolition

boom, provides further flexibility with a total of three different configurations for the same base machine.

A 60-ft (18m) demolition boom allows the machine to work with a demolition attachment to a maximum height of nearly 53 ft (16m). The recommended maximum combined weight for the attachment and quick coupler in this mode is 2.5t.

When equipped with the digging boom in the straight configuration, the DX245DM-7 can work to a maximum height of more than 31 ft (9.8m). In this format, the recommended maximum weight for the attachment and quick coupler is 3.3t. Using the digging boom in the alternative bent configuration, the DX245DM-7 can work with an attachment to a maximum height of 26.2 ft (8m). In this mode, the recommended maximum weight for the attachment and quick coupler is 3.3t.

The DX245DM-7 has a hydraulically adjustable undercarriage, which extends to a maximum width of 12.3 ft (3.74m) to provide optimum stability when working on demolition sites. The width of the undercarriage can be retracted hydraulically to 8.3 ft (2.54m) in the narrow width position, which is ideal for transporting the machine. The mechanism is based on a permanently lubricated, internal cylinder design which minimises resistance during the movement and helps to prevent damage to the components.

Like all DEVELON demolition excavators, standard safety features include a FOGS cab guard, safety valves for the boom, intermediate boom and arm cylinders and a stability warning system.

www.develon-ce.com



Husqvarna Delivers Complete Solutions in Surface Preparation

Husqvarna Construction has introduced a new line of branded shot blasters, steel blasters and related dust collectors, completing the integration of products formerly marketed by Blastrac.

"Adding the important shot blasting application under the Husqvarna brand to our existing surface preparation solutions—floor grinding, scarifying, and scraping—represents an important milestone in our goal to support our customers with any surface preparation challenge they may face," says Stijn Verherstraeten, Husqvarna Construction's senior vice president, concrete surfaces and floors.

Broader than construction

These versatile shot blasters are ideal for cleaning and retexturing of concrete and asphalt; removing coatings, paint, epoxy and removal of markings, and rubber;

and improving skid resistance. The steel blasting applications go broader than just construction, delivering cost-effective and efficient solutions for paint removal and steel surface remediation on windmills, ship decks, and petrochemical storage vessels.

"We're committed to support our customers before, during, and after their projects," Verherstraeten says. "We have dedicated teams for surface preparation in our key markets, and are continuously investing in internal and customer training programs to enhance competence in removing, preparing and refining floors."

The complete re-branded offering of shot blasters, steel blasters, and related dust collectors from Husqvarna Construction is now available for order.

www.husqvarnacp.com



An Abundance

Jobsite mechanization offers cutting-edge construction and demolition industry solutions

By Jeff Keeling, Vice President of Sales & Marketing, Brokk Inc.

The construction and demolition industries continue to see steady change. Contractors, laborers, and project managers are pushing for safer and more productive solutions to transform modern jobsites while facing an ever-growing backlog of projects fueled by the \$1.2-trillion Infrastructure Investment and Jobs Act. At the same time, "The Great Resignation" and Baby Boomer mass retirements contribute to labor shortages across the board.

With all these factors at play, relying on manual labor is simply unsustainable, given the challenge of worker recruitment and retention, safety, productivity, and overall cost-effectiveness. As a result, successful contractors work to supplement experienced crew members with technologically advanced equipment like robotic demolition machines to increase efficiency and reduce the physical strain on laborers. Additional mechanization options help contractors take advantage of current opportunities while accommodating industry trends.

Productivity Boost

Handheld pneumatic breakers and other highly physical methods have been commonplace on jobsites for decades. However, increased jobsite mechanization has allowed contractors to revolutionize productivity.

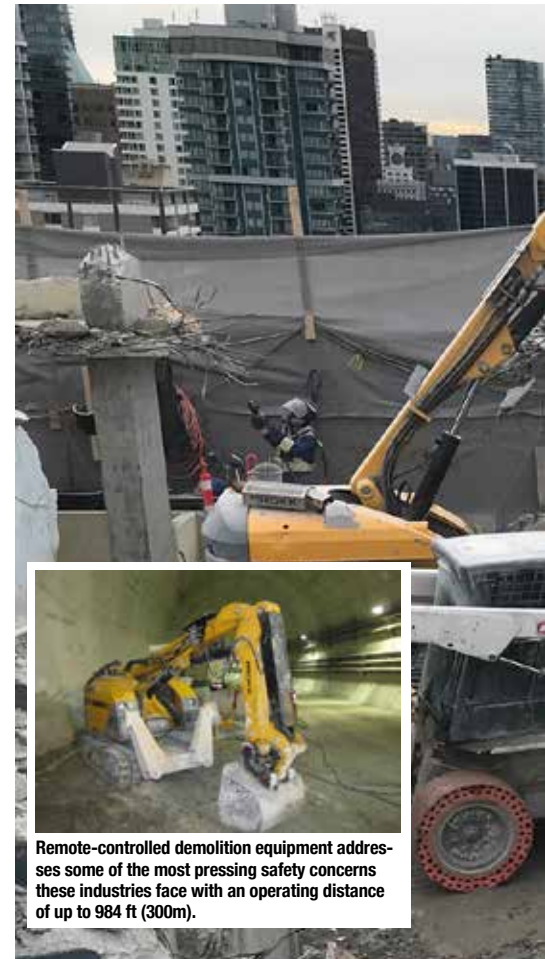
A demolition robot paired with a hydraulic breaker, for example, improves upon previous productivity goals with an impressive hitting power, on par with excavators three times their size, and offer industry-leading power to weight ratios. These compact machines access some of the most confined and restrictive jobsites — including those with dust, vibration, and noise restrictions as well as low floor loads. At 31 in (79cm) wide and weighing 1,235 lb (560kg), the most compact units are small enough to fit through standard doorways and light enough to be transported on passenger elevators, making them ideal for confined spaces and interior demolition projects. Larger models are available with higher power ratios for more challenging applications.

By employing these heavy-hitting machines, contractors can greatly increase efficiency in applications previously limited to large crews with handheld equipment.

For example, one contractor was able to cut their demolition crew by a third during the nearly one million-ft² (92,903m³), multi-level tear out. The two 2,183-lb (990kg) demolition robots were able to access floors where even skid steers were deemed too heavy. With each robot only requiring a single operator, the contractor was able to better utilize remaining employees across simultaneous jobsites while increasing productivity and lowering overall labor costs.

Safety Benefits

For many in construction and demolition, increased safety is one of the biggest benefits of mechanization. Remote-controlled demolition equipment addresses some of the most pressing safety concerns these industries face. With an operating distance of up to 984 ft (300m), remote-controlled units physically distance employees from harmful silica dust, as well as the strong vibrations of handheld equipment



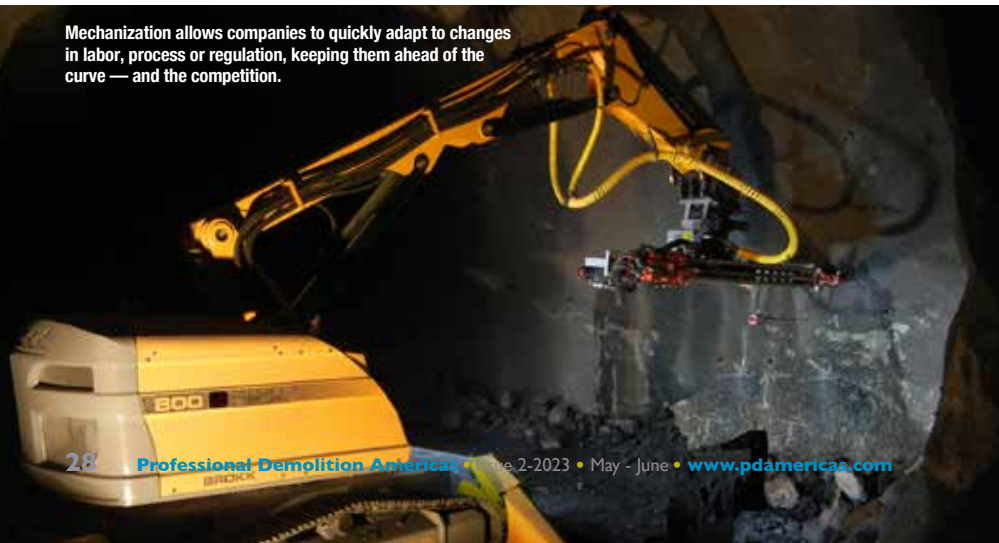
Remote-controlled demolition equipment addresses some of the most pressing safety concerns these industries face with an operating distance of up to 984 ft (300m).

such as breakers, rivet busters, and chipping guns. Long-term use of these common demolition tools is linked to a number of chronic injuries, including carpal tunnel syndrome, nerve damage, and hand-arm vibration syndrome.

Additionally, remote-controlled demolition machines help prevent one of the most common causes of serious work-related injury and death in construction — falls. A remote-controlled unit allows operators to remain a safe distance from ledges and other fall hazards. This provides peace of mind for workers and project managers, but also increases productivity by minimizing the need for erecting fall protections.

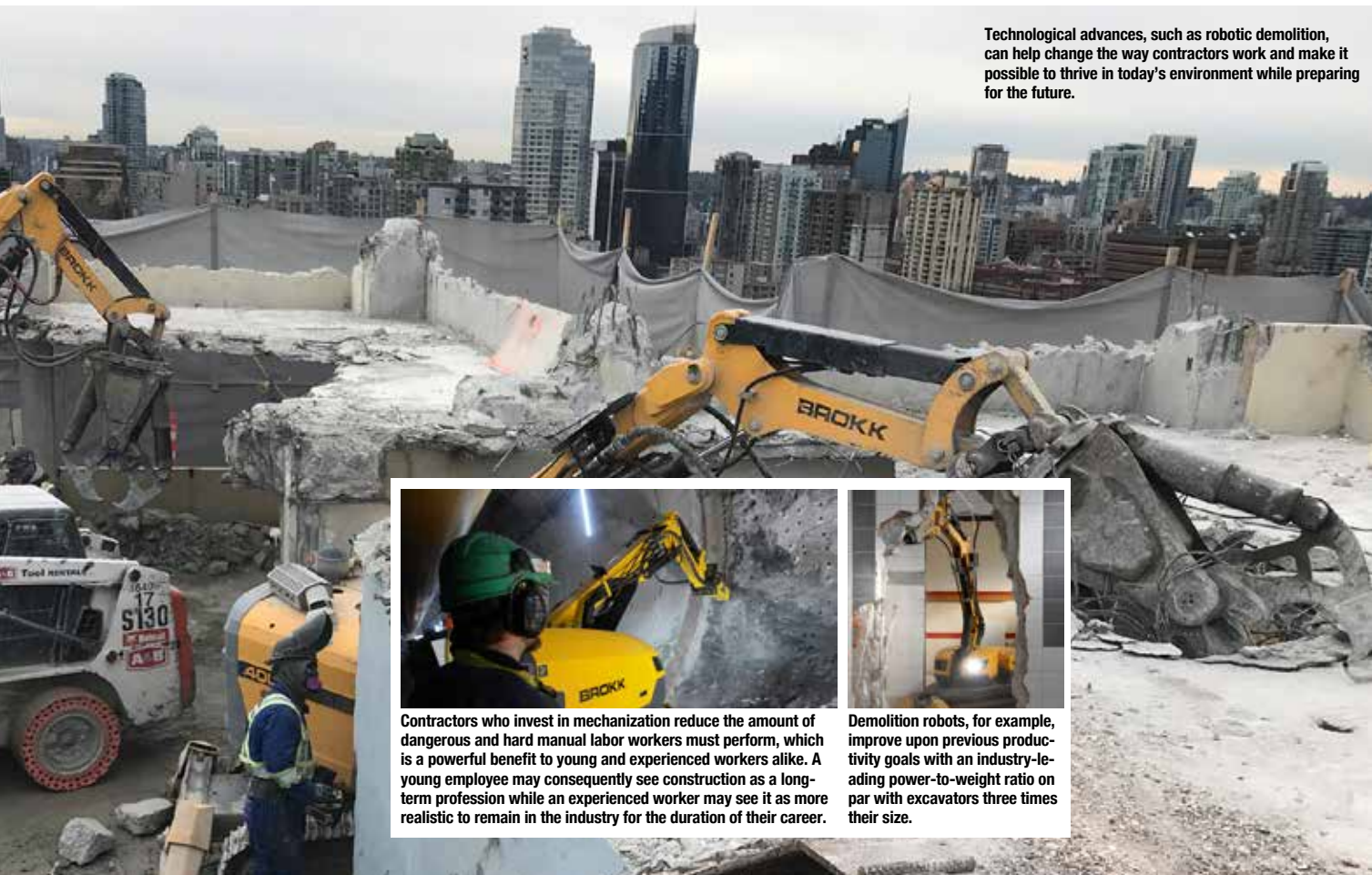
For contractors using remote-controlled machines, these safety benefits can quickly add up to significant savings on workman's compensation and insurance premiums. Remote operation paired with smaller crew size can significantly lower worker

Mechanization allows companies to quickly adapt to changes in labor, process or regulation, keeping them ahead of the curve — and the competition.



of Opportunity

Technological advances, such as robotic demolition, can help change the way contractors work and make it possible to thrive in today's environment while preparing for the future.



Contractors who invest in mechanization reduce the amount of dangerous and hard manual labor workers must perform, which is a powerful benefit to young and experienced workers alike. A young employee may consequently see construction as a long-term profession while an experienced worker may see it as more realistic to remain in the industry for the duration of their career.

Demolition robots, for example, improve upon previous productivity goals with an industry-leading power-to-weight ratio on par with excavators three times their size.

liability costs by limiting personnel in confined spaces or hazardous operations.

One concrete cutting contractor who made the switch to demolition robots has seen a decrease in annual workers compensation claims by about 50%. The company has also seen a 25% decrease, or about \$40,000 - \$50,000 savings, in injury costs per year. Another concrete cutting operation reduced its experience modification rate (EMR) by adding demolition robots to their equipment fleet. Insurance companies calculate EMR based on a company's safety record. Higher EMRs result in higher insurance premiums.

Recruitment and Retention

Implementing cutting-edge technology also offers some powerful recruitment and retention tools. When it comes to safety, for example, the workforce is well-aware that quality of life and length of career

can be significantly affected by injuries and silica dust exposure. At this time, the median age of a construction worker is 42.3 years. Contractors who invest in mechanization reduce the amount of dangerous and hard manual labor workers must perform, which is a powerful benefit to young and experienced workers alike. A young employee may consequently see construction as a long-term profession while an experienced worker may see it as more realistic to remain in the industry for the duration of their career.

Cutting edge technology also attracts younger workers. For one concrete cutting company, including advanced robotic technology in their fleet helped reduce the median age of their 300-person workforce to just 25 years old and cut turnover 10%. The machines also allowed the contractor to do more work with fewer people, increasing productivity 17% over three years.

It's both an exciting and challenging time for

construction and demolition. Opportunities abound for contractors, especially those who find creative ways to recruit, retain and best use the skills of their workers. Technological advances, such as robotic demolition, can help change the way contractors work and make it possible to thrive in today's environment while preparing for the future. Mechanization allows companies to quickly adapt to changes in labor, process or regulation, keeping them ahead of the curve, and the competition.

About the Author

As vice president of Brokk, Inc., Jeff Keeling works closely with regional sales managers to develop and grow the company brand in key segments across North America. He is also responsible for educational initiatives aimed at helping customers maximize their Brokk machines' potential.

www.brokk.com

Controlling Dust for a Hospital Demolition Protects Patients and Students

To make way for a billion-dollar facility upgrade at Methodist University Hospital (MUH) in Memphis, Tenn., DT Specialized Services (DTSS) demolished and recycled an 8-story, 100,000 ft² (9,290m²) structure. Thanks to a DustBoss® DB-60 Fusion™ atomized misting cannon, DTSS mitigated harmful particulates and keep demolition dust under control throughout the project.

DTSS General Superintendent Seth Herber says that while the building was constructed of a steel skeleton, wrapped in precast concrete and brick, implosion wasn't a viable option, as airborne particles could migrate to the air intakes of the other buildings.

"Because there was asbestos fireproofing material used in the original construction, the floors were encapsulated one at a time with plastic wrap, so negative air pressure could be created," Herber says.

For much of the exterior demo work, DTSS used a Volvo EC380 mid-level excavator with a bucket and thumb, as well as a Volvo EC480 high-reach excavator to access the upper floors. The company also used a third excavator with a shear attachment and a concrete processor that crushed the brick and concrete and readied it for loadout.

The DB-60 Fusion made sense for the hospital site in several ways. Hoses and large sprayers common to demolition projects typically produce droplets as large as 10,000 microns in size, large enough to create a phenomenon known as "slipstream effect." Instead, the DB-60 Fusion creates millions of tiny droplets in the 50-200 microns size range – roughly the size of most dust particles generated by demolition projects.

Due to their small mass, atomized mist droplets produce virtually no slipstream and are light enough to travel with dust particles on air currents, increasing the chance of a collision and allowing the droplets to quickly drive dust to the ground. [Fig. 1]

Mounted on a roadworthy trailer, the DB-60 Fusion system uses a specialized barrel design with a powerful 25-hp

The DB-60 Fusion system uses a powerful 25-hp (18.3kW) industrial fan on the back end and a misting ring on the front.



The DB-60 Fusion effectively suppressed dust particles during the demolition.

(18.4kW) industrial fan on the back end and a misting ring on the front. On this project, the 10-hp (7.5kW) booster pump drew water from a metered city hydrant and increased pressure to as much as 250 psi, supplying the circular manifold fitted with atomizing nozzles. The nozzles fracture the water into an engineered mist, and the fan throws millions of tiny droplets in a 200-ft (60m) long cone, covering up to 62,800 ft² (5,834 m²) when using the 180° oscillator. Another key feature for DTSS on the project was the ability to quickly reposition the DB-60 to accommodate the changing worksite and prevailing winds.

"Wherever we need dust control as the job progresses, we can get the unit there quickly and have it running in minutes," Herber says.

A further advantage to precision dust control is the effect on equipment. In the past, workers have had to clean excessive dust buildup out of equipment air intakes and radiators to prevent engine breakdowns. When dust is addressed right at the point of emission, this activity is reduced considerably, saving maintenance time and protecting valuable equipment. By having a versatile hands-free dust control unit, sites are safer and more compliant, while reducing the overall cost of operation.

"This was a delicate project, strictly controlled, in a highly urban environment, yet we received no dust-related complaints on the job," Herber says.

Once the nine-month demolition was complete, Herber's crew brought in 5,000 yd³ (3,823m³) of dirt to fill and decommission the basement. Hospital officials report that a beautiful greenspace is planned in the location to serve as the front vista for the new facility.

www.bosstek.com



The \$1 billion upgrade plan is transforming MUH into a more modern and efficient health care campus.



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**Rockster R1100S
tracked impact
crusher saves
transport costs and
produces high-
quality aggregate in
New Haven, Conn.**

As a long-lasting Rockster distributor on the East Coast, Equip Sales & Leasing Corp. has played a pivotal role in building a customer base for Rockster crushers, including a rental program for many projects. When rented, the crusher comes with a highly trained Rockster operator to assist the customer and make sure the project is executed with the highest possible efficiency.

The latest project, commissioned by the city of New Haven, Conn., called for SRC Construction to demolish a number of low-income houses in order to make room for newer and improved replacements. A longtime customer of Equip Sales & Leasing Corp., SRC is familiar with Rockster machines, and decided to go with the reliable R1100S track-mounted impactor.

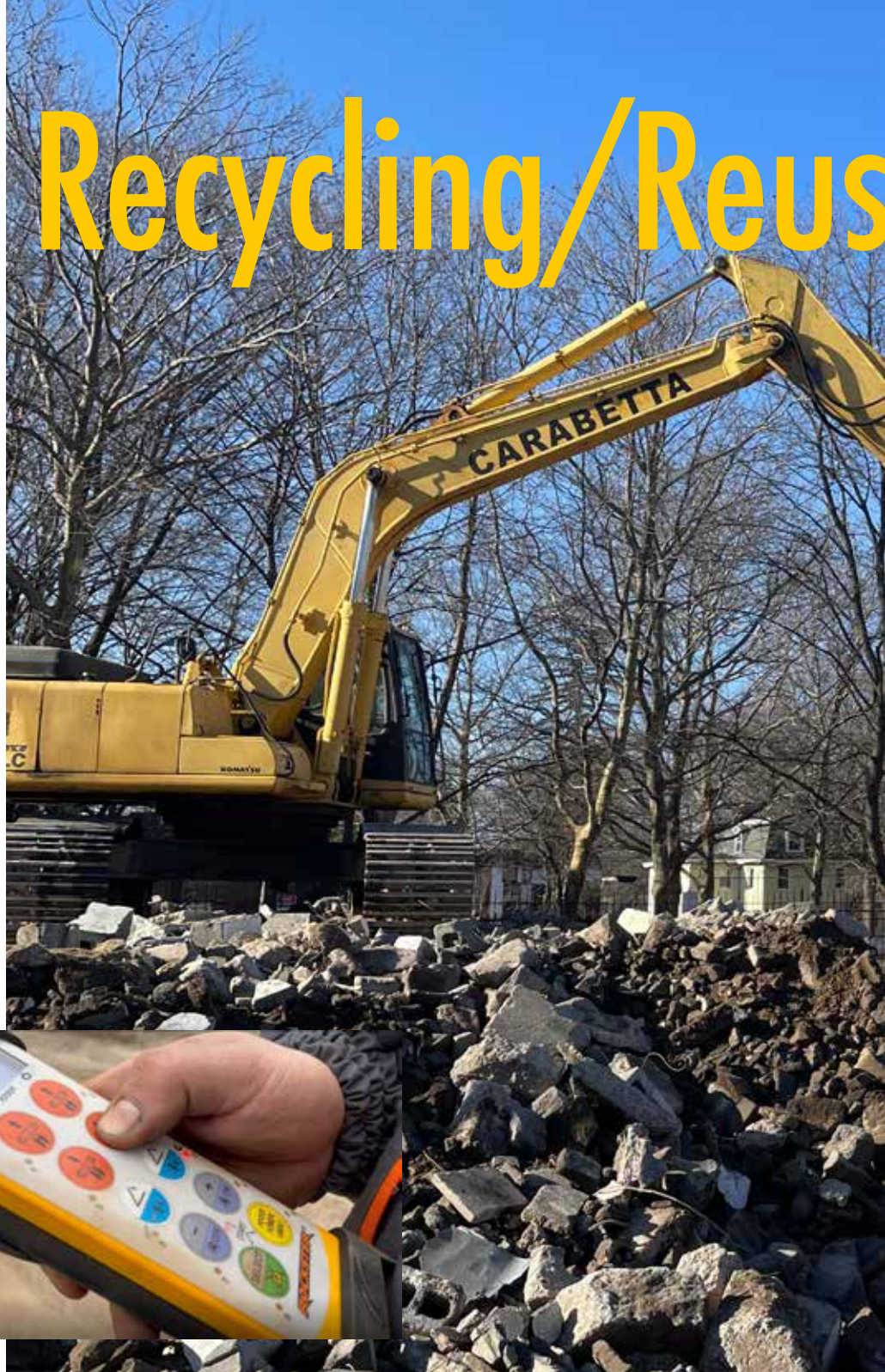
**Radio remote control is a standard
equipment for every Rockster crus-
her for easy and efficient operation.**

On-site recycling / On-site application

One of the main questions when it comes to demolition projects is where to put all the material. In order to minimize costs of transport and deposit of end-material some contractors recycle it on site, while others might have to transport it to another location.

For the New Haven project, on-site material recycling and reuse have proven to be extremely efficient as well as cost-effective solution. Not only are there saved costs, yet there is an added value in the very production of aggregate on-site. Recycled concrete with the feeding size of approximate 20 in (500mm) has been recycled to a 1.25-in (32mm) final product, and subsequently used for new building sub-base.

The Rockster R1100S, driven by a 380HP CAT engine in combination with hydrostatic drive system, continuously processed approximately 1,400 tons of material per day. As a result, the project took



R1100S recycling mainly concrete with the feeding size of up to 20 in (500mm), reducing it 1.25 in (32mm).

only one month to complete. And equipped with a standard magnetic separator, the R1100S helps ensured separation of rebar from reinforced concrete, resulting in clean material for the customer.

Rockster dust suppression system works magic

Another issue with the demolition site was its location in a residential area, across the street from a schoolyard where children play football daily. That made dust suppression system a must, but the Rockster R1100S was perfect for this job. No dust

contaminates left the job site."

Another big advantage of the Rockster machine for the project was its compact size, making it extremely mobile for transport from one job site to another. This was the case with this project where the crusher needed to move and due to its track-mounted system and a radio remote control it is like operating a toy.

Other standard features on the R1100S impact crusher include a vibration feeder with 2-stage pre-screen, adjustable bypass chute, crusher overload protection, sound-insulated engine housing, and a

Use of Demolition Debris



central control unit with color display. All of these just add to the convenience and ease of operating a Rockster crusher. It makes it uncomplicated for the operator and less down-time, and higher and continuous performance for both the operator and customer.

www.rockster.at

Rockster impact crusher R1100S with a screening system recycling concrete at a demolition site in a residential area of New Haven, Conn.



Epiroc ER 3000 Drum Cutter Clears the (Flow) Path Into the Future

In order to keep the Rhine River navigable for freight transport despite low water levels, the shipping channels must be regularly adjusted. The powerful yet extremely gentle Epiroc ER 3000 drum cutter proved to be the tool for the job. The company says that it performed underwater due to its high-quality technology, precise performance and environmentally friendly components.

Climate change and the particularly long periods of high temperatures this summer had a severe impact on the Rhine, meaning that supplies to companies along the river could only take place under difficult conditions and with restrictions. Shipping and the associated transport of goods have suffered enormously. For one of the most frequented goods transport routes, it is therefore particularly important to keep the channel navigable, to improve it, to prevent water levels falling and to secure the infrastructure for the future.

Milling work must be carried out in the Middle Rhine area, between Östlich and Geisenrücken, in order to guarantee a target depth of nearly 7 ft (2.1m) below the equivalent water level. For this profiling of the channel, crags and other obstacles are removed underwater at specific points. The scaly, cracked material requires suitable drum cutter sizes and carriers. The project, funded by the German Federal Ministry of Digital Affairs and Transport, proved challenging for all parties involved as the use of hydraulic breakers or blasting is not permitted due to harmful vibrations and uncontrolled sediment formation. Special conditions for working underwater also apply not least nature conservation requirements.

Implementation – first class and sustainable

Hülksens Wasserbau GmbH & Co. KG., an experienced hydraulic engineering company, utilized two floating pontoons that carry the required technology. A Demag-H95 special excavator mounted on the front pontoon serves as the carrier. The usual tests for harmful metal such as armaments was undertaken with large amounts of scrap being uncovered.



The work required a powerful solution in sensitive conditions which proved to be ideal for Epiroc's ER 3000 drum cutter, fitted with special wear protection for extreme underwater use, as well as an additional suction hood installed in the first construction phase. With this tried-and-tested technique, the excavation material produced during the milling work is extracted and transported to the rear pontoon in a controlled manner. There is also a technically sophisticated filter and separation system as well as a loading container for the excavation material.

The underwater work requires environmentally safe operation; however, the Epiroc drum cutter is not only powered by bio hydraulic oil, but also special bio-oil for use as the gearbox lubricant. During operation, the ER 3000 is supplied with an oil quantity of 111 gpm (420 lpm). All in all, the work has so far been carried out without any difficulties or damage. The low wear on the cutting tools once again underlines the high quality of the ER 3000.

Erkat's milling technology has been part of the Epiroc Group since 2017 and as the case demonstrates, has proved to an essential tool in a combination of equipment, procedure and know-how.



Liebherr Maintains Busy 2023 Trade Show Schedule

Liebherr USA was on hand at the ISRI Convention and Exposition in Nashville in April to showcase its material handling technology, including the LH 60 M with GM64 grapple.

The LH 60 M Industry is optimized for heavy duty material handling in the areas of scrap, timber, and harbor-related operations. The machine is equipped with the patented Liebherr ERC energy recovery system, which gives it a boost in performance and saves fuel. This results in significantly greater material handling performance as well as improved machine economy. The attachment for the LH 60 M is also available in a variety of options for every application.

In May, Liebherr earthmoving and material handling technology was on display at WasteExpo 2023 in New Orleans, with the L 556 wheel loader and R 914 compact litronic taking center stage.

The L 556 offers an innovative machine concept which combines performance, fuel efficiency, strength, and comfort. The machine has a tipping load of up to 35,000 lbs (15,900kg), a bucket capacity of 15.7 yd³ (12m³), and a maximum operating weight of 59,300 lb (26,900kg).

An innovative Liebherr driveline helps minimize fuel consumption and brake and tire wear. The L 556's excellent handling capacity also help operators cut back on operating costs.

At 37,000 lb (16,750kg), the R 914 compact litronic is the smallest Liebherr crawler excavator. It features a powerful diesel engine and particularly high break-out forces. The extraordinary sensitivity of the hydraulic system enables the operator to work with precision at high speeds, even when moving. And the short rear slewing radius delivers greater safety for both operator and the machine.



MB Drum Crusher Shattering Costs and Time



The MB Crusher range of drum cutters offers innovative solutions for demolition, trenching, and profiling work.

The MB Crusher drum cutter is an innovative piece of equipment used to mill different types of materials quickly, accurately, and with little or no vibration, cutting time on the job while gaining in efficiency. The MB Crusher drum cutter is particularly well-suited to demolition projects, reducing concrete to rubble quickly. Once the material is smaller, it occupies less volume, making it easier, faster, and cheaper to manage and haul.

MB drum cutters are efficient tools that can quickly mill hard materials. They are capable of grinding large surfaces at a higher speed than conventional cutting methods. The adjustable milling depth and speed make them suitable for a wide range of applications. In California, the use of a MB-R700 drum cutter to widen the banks of a river eliminated the need to use a digging bucket or hammer to dig the trench, while also producing in smoother walls and flatter surfaces.

In addition, MB drum cutters generate very low vibration and noise levels, making them ideal for use both indoors

and outdoors. They are therefore particularly suitable for construction sites in urban areas, where excessive noise and vibration can be a major problem. In addition, the drum cutter can be used at different angles, allowing greater access to hard-to-reach areas.

In the center of Bratislava, Slovakia, an MB Crusher MB-R700 drum cutter installed on a Takeuchi TB2150R is working at a depth of around 20 ft (6m) to build the foundations of future 50-storey buildings. Because the job was located in the city center, the cutter was chosen for its low noise level and because it does not spread vibrations to the excavator's boom nor to the surface it is grinding.

Finally, MB drum cutters can be used for a variety of applications, including trenching, milling, leveling, excavating and more. This makes them very versatile tools. In the city of Dnipro, Ukraine, a contractor initially tried milling an asphalt road with a hammer, but saw poor results. Switching to MB-R700 drum cutter installed on a CAT M318C wheeled excavator improved both quality and speed, enabling the contractor to successfully meet his deadline.

www.mbcruiser.com

Epiroc Debuts Hexagonal Picks for Drum Cutters



Epiroc presents HexPicks, a new range of picks with hexagonal bodies for all types of drum cutting equipment. The hexagonal shape is an ingenious industry first that will make daily maintenance easier, faster and less costly. The secret is that unsticking or replacement of the HexPicks can be done quickly and easily with a hexagon wrench. Epiroc reports that HexPicks are also more durable and will last up to 20% longer than all competing products.

According to Epiroc, the unique design of HexPicks is specifically intended to contribute to faster and easier pick maintenance and replacement. Instead of using a hammer and a degree of force, HexPicks can be unstuck or replaced on the jobsite with very little effort using a standard hexagon wrench. In addition, HexPicks come with the Epiroc QuickSnap retaining system, offering savings in time of more than 50% compared with normal circlips or knock-on retainers. The smart retaining clips enable the picks to be changed in a matter of seconds.

HexPicks last 20% longer than all competing products thanks to the materials used in their manufacture. The heart of the cutting operation is a stress-resistant tungsten carbide insert brazed into the body of the pick. Manufactured in a sintered material made up of tungsten carbide with a cobalt binder, the insert is designed to withstand the extreme stresses caused by continuously impacting the rock. The head and shaft of the pick body are made from optimized heat-treated steel and serve as the support for the tungsten carbide insert as well as full protection for the pick box.

In addition to more uptime and lower operating costs, the HexPicks' design also protects the drum's pick box and allows better rotation, which optimizes the pick resharpener process.

www.epiroc.com



Hydrodemolition Technology Deployed to Restore Wyoming Dam

The more than 90,000 dams in the U.S. serve a number of important purposes, including drinking water, irrigation, hydropower, flood control, and recreational opportunities. Unfortunately, the average age of a U.S. dam is 56 years, and 2,170 dams are classified as being “deficient, high-hazard potential.” It is hardly surprising, then, that the American Society of Civil Engineers recently gave the U.S. dam inventory an overall grade of “D.”

Fortunately, however, the latest hydrodemolition technology provides an effective and efficient method for repairing the country’s aging dam infrastructure. A recent project to rehabilitate the Alcova Dam in Wyoming demonstrates hydrodemolition’s value proposition for preserving these mission critical assets.

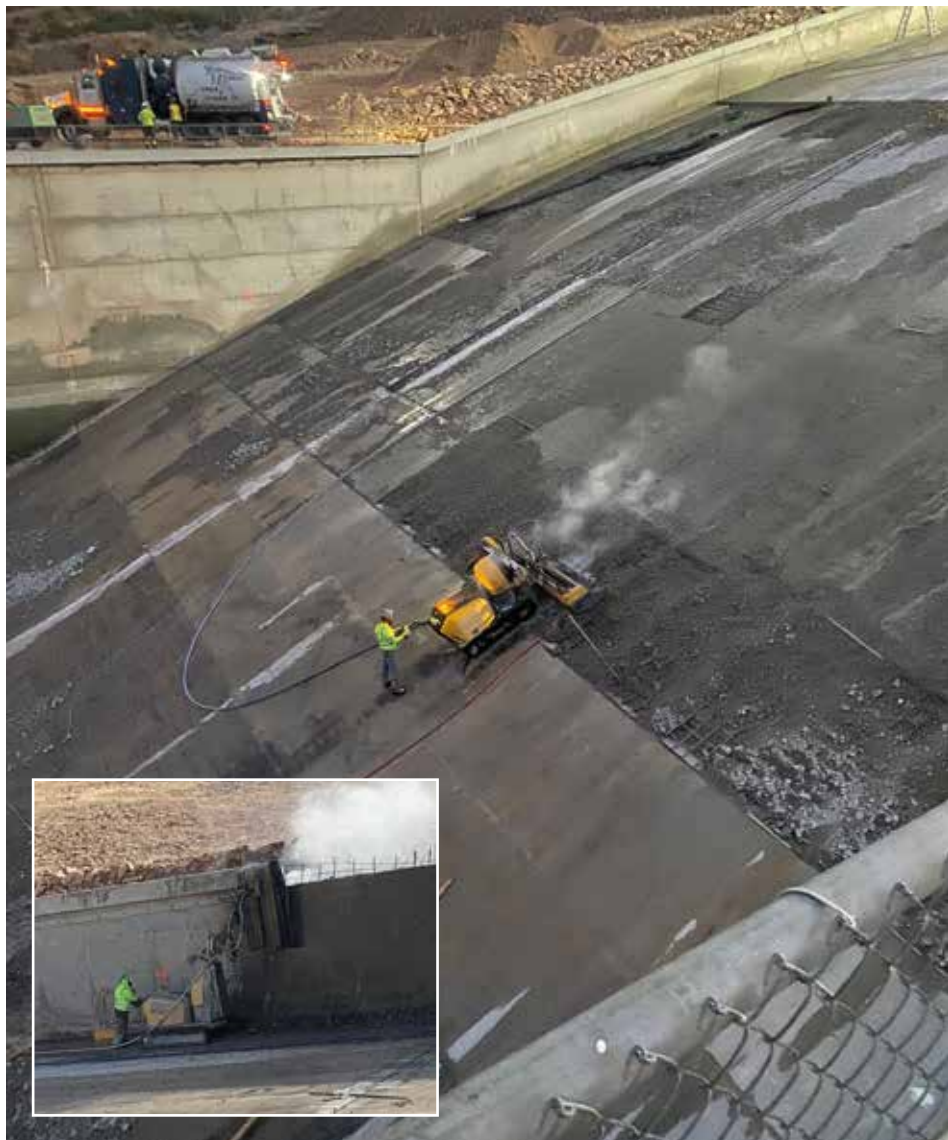
Owned by the U.S. Bureau of Reclamation, the Alcova Dam is an earthfill structure situated along the North Platte River in Central Wyoming. The dam is utilized for water storage and hydroelectric power generation.

NW Construction, tapped to manage and execute the Alcova Dam rehabilitation project, subcontracted with hydrodemolition specialist, Penn Hydro, Inc., to perform the removal of deteriorated concrete. Penn Hydro’s scope of work consisted of concrete removal from the spillway floor, walls and wall caps. Penn Hydro was also responsible for the collection, treatment and disposal of the hydrodemolition wastewater.

The project presented some unique challenges due to the terrain and the weather conditions. The dam’s spillway includes some very steep grades, vertical walls up to 60 ft (18m) high, and wall caps, all of which contained deteriorated concrete in need of removal and replacement with a fresh overlay. The Bureau’s recommendation for commencement of work on the spillway was October 2020—a time of year when lower water levels of the North Platte River provide the safest conditions for workers. However, the late Fall start could also prove to be difficult given the cold weather in Wyoming at that time of year.



Using only the Conjet 557 and no additional attachments or tools, Penn Hydro was able to operate on extremely steep sections of the spillway under sometimes icy conditions.



“The Conjet 557 performed extremely well on this project,” said Penn Hydro’s president Oliver Scigliano.

Penn Hydro needed a hydrodemolition robot that was highly versatile, and would perform consistently in these challenging conditions. The company Conjet Automated Concrete Removal (ACR™) Robot 557 to handle this complex project. The 557 has a number of strengths, including its versatility, productivity and the high level of customer support provided by Conjet’s team located in Sweden and North America.

Penn Hydro’s initial scope of work yielded a schedule of roughly 10 weeks. The concrete strength of the spillway floor and walls was tested to be 5,000 psi. The volume of concrete removal was estimated at 209.2 yd³ (160 m³) of concrete on the spillway floor and walls for an average depth of 6 in (15 cm). An additional 140 yd³ (107 m³) of concrete was estimated

for removal on the spillway wall caps for an average depth of 15 in (38 cm).

The concrete removal was completed by Penn Hydro in mid-December, a full week ahead of schedule.



Floor Removal: How Much is Too Much?

By Dave Bigham, Global Director of Training,
National Flooring Equipment

Typically, flooring is removed for aesthetic reasons — like to match a company's particular style or branding. For example, well known coffee shops require the same style of floor in each chain to ensure consistency. In homes and offices, the style of floor is typically decided by what's is currently trending or to match the rest of the interior's décor.

While it is common for contractors to remove some concrete along with the floor covering, it's often small enough to go unnoticed. Still, major concrete damage can happen, contractors should understand when concrete requires repair and how to do it effectively.

The success of the new floor relies heavily on how contractors prepare the substrate. If concrete is left uneven, any floor laid on top cannot sit correctly and will need to be ripped up so that the substrate can be fixed. This adds time, creates unnecessary waste, and makes the job far more expensive than needed.

Concrete Hardness

The hardness of concrete can sometimes be a factor in the level of damage seen during floor removal. Natural materials make up 70% of concrete mixture, and can vary based on the environment. For example, areas such as Tennessee and Ohio, where aggregate is made up of hard rocks like granite and quartzite, often have harder concrete compared to sandstone and limestone used in Florida and Texas. Other factors that affect concrete hardness include curing techniques, levels

of hydration, and mineral additives in the mixture.

That means the degree of pressure the contractor uses affects the level of damage left behind. In areas with softer concrete, a lighter hand is needed to remove flooring and avoid removing chunks of concrete underneath. Before doing the job, contractors can visit the site and conduct a patch test — removing a small portion of flooring to assess the best method of removal, and get an idea of the concrete hardness ahead of time.

In most situations, concrete damage is due to tooling choice, rather than machine. If tools are used too aggressively or in the wrong way, contractors have to go back and repair it. It's also not always just the type of flooring being removed that's the issue. Older materials like asbestos adhesive requires specific PPE to avoid inhaling harsh chemicals, as well as heavy-duty tools to remove any excess residue, which can damage to the concrete underneath.

Repairing concrete damage

Once concrete has been damaged, there are a few ways contractors can repair the surface ready for new flooring to be laid on top. Adding a concrete topping or overlay can even out any dents or rivets, ensuring the new flooring can lay flat. This method is often used when large sections of the floor are damaged and need repair.

Alternatively, floor patches are particularly useful when only small parts of the floor are not level, to smooth out the uneven areas. However, floor patches are never as hard as regular psi concrete strength, so it's common for these to

be removed or damaged during future floor removal. Floor patches are difficult to see or aren't always bonded correctly to the original concrete and therefore will need to be replaced before new flooring is laid down.

Just like choosing the right priming tool can improve a wall's finish, knowing which tooling to use on each floor will ensure the concrete underneath is left intact. Even in situations where the concrete is affected, there are methods to prep the surface and avoid any imperfections to the floor once new material has been laid down.

www.nationalequipment.com

National Flooring Equipment's Rogue Scraper Changes the Game in Heavy-Duty Floor Removal

Unlike industrial floors that typically last for many years, residential jobs will be more frequent due to new housing developments or regular renovations to keep up with the latest design trends. As a result, in most situations, contractors working on industrial applications can turn up to large, open spaces and immediately start removing the floor. Residential projects often involve extra consideration. Residential spaces are built for different use, with smaller, enclosed spaces on multiple floors. Effective floor removal is no easy feat, especially when working in areas with tight space constraints created by enclosed spaces. Larger floor preparation machines are unable to get into tight spaces or have limited blade angle adjustment to effectively remove flooring and adhesive, which then means the operator has to use hand tools to finish off the project. This can add a lot of time onto the project and requires more operator output. Ride-on scrapers can also be difficult to transport, especially when working on multiple floors. While heavy ride-ons can quickly and efficiently complete work in large, open spaces, operating them on upper residential floors is often impossible, so contractors need additional equipment in the case that the original machine cannot be moved from room to room. While there are lighter machines on the market, a lightweight machine doesn't always have the torque or power to remove heavy-duty flooring, meaning that operators would still need to use additional equipment, which makes it a more costly process.

Changing the game

West Coast floor removal contractor Bottom Zupp has helped many residential owners remove stubborn flooring, but every application has its challenges. For example, the company was recently asked to remove 2,000 ft² (186m²) of glued down wood on the second floor of a house. Fortunately, National Flooring Equipment was in the final stages of developing the Rogue, a 480-lb (218kg) walk-behind scraper to have that also boasted the maneuverability of a rider plus the ability to work up to 150 ft (45.7m) per minute—five times the pace of conventional walk-behind machines. What's more, the Rogue removed the need for manual scraping, turning a multi-day job requiring manual labor in to one that could be completed in less than a day.

"Despite only using it a few times, I can already see the Rogue becoming a great asset," says Bottom Zupp president Richard Nickerson. "Going forward, it will not only be valuable to us when we're working on over 15 homes a day, but across the country. Everyone should include it as part of their equipment range."

nationalequipment.com



KEMROC KR 165 Drum Cutter Converts World War II Bunker to a Residential Building

"Comfortable living" is a term not normally associated with the idea of setting up a comfortable home in an old bunker. However, this is exactly what has recently become a fashion trend in Hamburg, Germany. Of the approximately 400 bunkers remaining from World War II, several dozen are mostly above-ground. For these buildings, the preferred option is not to demolish them completely at great expense, but demolish sections with no value and to convert the rest into residential buildings.

Thick and well reinforced concrete

For local contractor Wilko Wagner GmbH, the task was to demolish part of bunker closely surrounded by occupied residences. Along with demolishing a back wall facing the courtyard, the inside of the bunker—originally consisting of six floors each with a ceiling height of around 6 ft (2m)—was to be completely gutted out from top to bottom. To add penthouse apartments to be the building, the existing 86.6-in (220cm) thick massive reinforced concrete roof, weighing 400t, had to be removed.

To get started, the contractor hand-cut a hole through each of the 10-in (25cm) thick floors, then used a wire saw to cut an opening through a wall on the ground floor, through which around 9,155 yd³ (7,000m³) of demolished concrete material could later be transported away by small loader. At a later stage, the interior of the building will be completely rebuilt.

Fortunately, the roof was strong enough to support a 35t excavator paired with a KEMROC KR 165 drum cutter attachment. After removing the top bitumen layer, the excavator operator cut a "foxhole" through the concrete roof to discharge material from subsequent demolition work.

The excavator and drum cutter were also used to create openings for floor-to-ceiling windows through the bunker's 43.3-in (110cm) thick, heavily reinforced façade walls. The bunker wall between the corners was ground out leaving a thin section of wall. The third step involved

Man-high window openings were created in three steps using a wire saw, a KEMROC KR 165 drum cutter attachment and a demolition shearer.



By proceeding cautiously, the excavator operator found the most favorable ratio of productivity and wear with acceptable vibration and noise levels.

removal of the remaining thin section of wall using an excavator with shearer.

Reliable equipment

The KEMROC KR range of rotary drum cutter attachments use planetary gears which makes them very rugged and reliable and the ideal attachment for short boom carriers working in confined spaces and for low-vibration and low-noise demolition of reinforced concrete. Their hydraulic motors deliver high torque and maximum cutting force. The cutter picks are welded in the optimum pattern onto the cutter drums which are connected to the body using very heavy-duty bearings. Machines are supplied from the factory with connections for optional water spraying for dust suppression.

Following the "less is more" principle, Wilko Wagner operators ran the attachment with moderate feed pressure to achieve a smooth cutting action gave the best productivity to wear cost ratio. At the same time, running the drum cutter at this optimal level also ensured that noise and vibration levels were kept within acceptable limits. In the case of using the water spray for dust suppression, it was important to use the right amount of water in order to generate as little surface water as possible.

As a result, the bunker demolition work was completed in about six months with few noise and dust disruptions to the neighborhood.

www.kemroc.de

Conversion of a World War II bunker in Hamburg-Winterhude included the use of a 35t crawler excavator with a KEMROC KR 165 drum cutter attachment.





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Brokk Brings Efficiency to Driving Piles in Confined Spaces

Prior to a major renovation project and the construction of a hotel, the foundations of a historic 16,146-ft² (1,500m²) building in Gothenburg, Sweden, needed to be reinforced. Built in the early 1950s, the foundations were piled with timber, which over time has begun to rot, causing the foundation to be compromised. Many cities are built on timber piles, which work well until exposed to oxygen. Soil conditions have a major effect, as does densification of cities. New buildings, road construction, and new landscaping near house facades disturb the soil, which in turn affects the timber piles. As a result, the foundations will often require reinforcement.

Project supervisor Richard Hammar of Grundia AB says that the project lasted about seven months. Early in the planning process, several challenges emerged, which resulted in a demolition robot being the only solution for the job.

"Some areas in the building are confined and sometimes difficult to access, the size, power, and flexibility of the Brokk made it an obvious choice," Hammar adds.

As the work was to be carried out in a basement, the requirements were specific. The robot needed to get through passages less than 31.5 in (800mm) wide, and travel up and down stairs. The Brokk 200's ability to deliver maximum power in relation to its size was crucial to this setting, as the task required the use of a large hydraulic breaker in a limited space.

And because the Brokk robots are remote controlled, the operator has the opportunity to maneuver the robot from a safe distance allowing the best possible view of the work. As the project was carried out entirely indoors, an electric powered machine was essential. The exhaust fumes from a diesel-powered machine would have made the work environment unbearable.

A Brokk robot is incredibly versatile thanks to the ability to use different attachments. When piling, the choice of hydraulic breaker may differ depending on the soil conditions and the state of the building; in this particular case a breaker with a large-diameter piston was needed. When using a heavy breaker, the robot needs a counterweight for good stability. With these types of jobs, where there is limited space and limited ceiling height, a side mounted breaker made it possible to maintain a high working pace. In addition, this type of breaker made it possible to maximize the length of each pile.

In total, Grundia AB laid more than piles on the building. The average depth was about 134.5 ft (41m), but varied between 56 and 130 ft (17 and 70 m). Due to changing ground conditions, some piles could be driven quickly, and others took several hours. For the deepest piles, the first 131 ft (40m) took about two hours, while the remaining 66 ft (20m) took almost four hours. Altogether, the Brokk 200 was used for 1,500 hours during the project.

www.brokk.com



Goldhofer Showcases Products at Conexpo

The people at Goldhofer were more than satisfied with the outcome of this year's Conexpo in Las Vegas. The expectations were more than exceeded with regard to demand for top-quality transportation solutions and value-creating services. Customers were equally impressed, with the Goldhofer P12 PLUS and STZ- P9 being of particular interest. The STZ-VL three-axle lowboy semitrailer with an additional flip axle also attracted keen interest. On the North American market especially, the additional flip axle is a key consideration. It increases the vehicle's flexibility and payload and enables it to operate across interstate lines with changes in regulations.

The highlight in Las Vegas and an absolute eye-catcher was Goldhofer's ADDRIVE with the FTV 850 blade carrier. The vehicle combines the advantages of a towed heavy-duty module with those of a self-propelled module. With its enormous tractive force, it supports the tractor unit up to a speed of 31 mph (50 kph). The driven axles are then disengaged automatically and can be re-engaged at lower speeds while driving.



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Aquajet's Aqua Cutter 750V

Aquajet showcased its newest hydrodemolition robot—the Aqua Cutter 750V—at Conexpo 2023. The new model launches Aquajet's revolutionary patented Infinity oscillation that moves the water jet in an infinity — or Figure 8 — pattern, removing more concrete in a single pass while reducing shadowing, eliminating the risk of pipe holes and providing an ideal bonding surface.

As with all Aqua Cutter Robots, the 750V cleans and descales rebar without causing microfracturing. It also maintains exceptional horizontal, vertical and overhead reach, making it suitable for a wide variety of concrete removal tasks, such as renovation and bridge and road repair.

As part of the revolutionary design, the Aqua Cutter 750V also includes an upgraded version of the Evolution Control System, allowing operators to cut shapes and remove concrete at different depths in the same pass. A visual status light shows the state of the machine with different colors, allowing operators to easily see when the machine is working correctly, when it needs attention, and when automatic functions or the engine have stopped.

Another key feature is remote start and stop of the diesel engine through radio remote control, as well as automatic shut down if there's no activity for a certain amount of time, saving battery power.

The 750V also offers a new level of performance with Aquajet's precision drive. This technology provides highly



Aquajet's Aqua Cutter 750V hydrodemolition robot features Aquajet's Evolution 3.0 Control System and revolutionary infinity oscillation for higher productivity.

accurate hydraulic movements, eliminating the inconsistencies that compromise the result. In automatic mode, the robot's lance is highly controlled and always keeps the water jet in the ideal position, which is key to achieving a perfect Hydro-demolition result.

The 750V is compatible with Aquajet's Ecosilence

high-pressure pump that supplies the water to run the machine and provides a cost-effective option for transport and storage. The 20-ft (6m) purpose-built, insulated container includes the pump, large-capacity diesel engine, and control system, with a convenient storage area for the robot and accessories.

www.aquajet.se

OilQuick's New OQC90 Designed for Large Material Handling Machines

OilQuick has introduced its largest automated quick coupler—the OQC90, designed for the world's largest material handling machines. Stronger than its smaller OQC models, the OQC90 can lift up to 68t. It has a 100A electrical swivel connection and up to four hydraulic connections, making it ideal for large material handlers and harbor cranes.

OilQuick's OQC quick coupler line is primarily designed for use on loading and recycling cranes and



other handling equipment. The system consists of an extremely rugged 360-degree rotator mounted on a fully hydraulic, tried-and-tested quick coupler. The OQC unit is suspended from the handling equipment's stick.

Using the OQC system, operators can switch

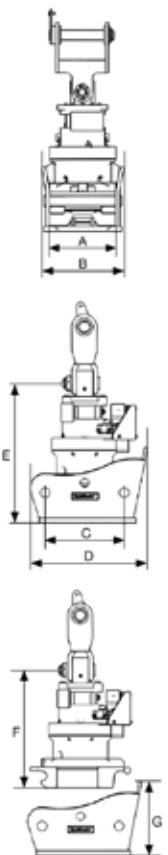


lifting hooks, wood chip buckets, clamshell grapples, grapples, and magnets all with just a push of a button from the safety of the cab.

Along with minimizing oil spills, the OQC system reduces the number of machines on the site while also increasing productivity.

OilQuick is the world's best-selling hydraulic quick coupler system with more 46,000 systems sold worldwide. OilQuick was the first fully automatic quick coupler on the market and launched the first products in 1993.

www.oilquick.com





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